

Exhibit 21

Page 1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NEW JERSEY

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IN RE: JOHNSON & :
JOHNSON TALCUM POWDER :
PRODUCTS MARKETING, :
SALES PRACTICES, AND : NO. 16-2738
PRODUCTS LIABILITY : (FLW) (LHG)
LITIGATION :
:
THIS DOCUMENT RELATES :
TO ALL CASES :

- - -

March 27, 2019

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Videotaped deposition of
KEVIN HOLCOMB, M.D., taken pursuant to
notice, was held at Weil Gotshal &
Manges, LLP, 767 Fifth Avenue, New York,
New York, beginning at 9:53 a.m., on the
above date, before Michelle L. Gray, a
Registered Professional Reporter,
Certified Shorthand Reporter, Certified
Realtime Reporter, and Notary Public.

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GOLKOW LITIGATION SERVICES
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deps@golkow.com

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<p>1 APPEARANCES:</p> <p>2</p> <p>3 ROBINSON CALCAGNIE, INC.</p> <p>4 BY: CYNTHIA L. GARBER, ESQ.</p> <p>5 19 Corporate Plaza Drive</p> <p>6 Newport Beach, California 92660</p> <p>7 (949) 720-1288</p> <p>8 cgarber@robinsonfirm.com</p> <p>9</p> <p>10 - and -</p> <p>11</p> <p>12 BLOOD HURST & O'REARDON, LLP</p> <p>13 BY: PAULA R. BROWN, ESQ.</p> <p>14 501 West Broadway</p> <p>15 Suite 1490</p> <p>16 San Diego, California 92101</p> <p>17 (619) 338-1100</p> <p>18 Pbrown@bholaw.com</p> <p>19</p> <p>20 - and -</p> <p>21</p> <p>22 BEASLEY ALLEN, P.C.</p> <p>23 BY: MARGARET M. THOMPSON, M.D., ESQ.</p> <p>24 BY: P. LEIGH O'DELL, ESQ.</p> <p>25 218 Commerce Street</p> <p>26 Montgomery, Alabama 36104</p> <p>27 (334) 269-2343</p> <p>28 Margaret.thompson@beasleyallen.com</p> <p>29 leigh.odell@beasleyallen.com</p> <p>30 Representing the Plaintiffs</p> <p>31</p> <p>32</p> <p>33</p> <p>34</p> <p>35</p> <p>36</p> <p>37</p> <p>38</p> <p>39</p> <p>40</p> <p>41</p> <p>42</p> <p>43</p> <p>44</p>	<p>1 APPEARANCES: (Cont'd.)</p> <p>2</p> <p>3 TUCKER ELLIS, LLP</p> <p>4 BY: JAMES W. MIZGALA, ESQ.</p> <p>5 233 South Wacker Drive</p> <p>6 Suite 6950</p> <p>7 Chicago, Illinois 60606</p> <p>8 (312) 624-6307</p> <p>9 james.mizgala@tuckerellis.com</p> <p>10 Representing the Defendant, PTI</p> <p>11 Royston LLC and PTI Union LLC</p> <p>12</p> <p>13 ALSO PRESENT:</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p>26</p> <p>27</p> <p>28</p> <p>29</p> <p>30</p> <p>31</p> <p>32</p> <p>33</p> <p>34</p> <p>35</p> <p>36</p> <p>37</p> <p>38</p> <p>39</p> <p>40</p> <p>41</p> <p>42</p> <p>43</p> <p>44</p> <p>45</p> <p>46</p> <p>47</p> <p>48</p> <p>49</p> <p>50</p> <p>51</p> <p>52</p> <p>53</p> <p>54</p> <p>55</p> <p>56</p> <p>57</p> <p>58</p> <p>59</p> <p>60</p> <p>61</p> <p>62</p> <p>63</p> <p>64</p> <p>65</p> <p>66</p> <p>67</p> <p>68</p> <p>69</p> <p>70</p> <p>71</p> <p>72</p> <p>73</p> <p>74</p> <p>75</p> <p>76</p> <p>77</p> <p>78</p> <p>79</p> <p>80</p> <p>81</p> <p>82</p> <p>83</p> <p>84</p> 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<p>1 - - - 2 DEPOSITION SUPPORT INDEX 3 - - - 4 5 Direction to Witness Not to Answer 6 PAGE LINE 7 None. 8 9 Request for Production of Documents 10 PAGE LINE 11 None. 12 13 Stipulations 14 PAGE LINE 15 None. 16 17 Questions Marked 18 PAGE LINE 19 None. 20 21 22 23 24</p>	<p>1 BY MS. GARBER: 2 Q. Good morning, Doctor. 3 A. Good morning. 4 Q. Would you please state your 5 name for the record? 6 A. Yes. My name is Kevin 7 Holcomb. 8 Q. And you're a medical doctor? 9 A. Yes, I am. 10 Q. Are you a gynecologic 11 oncologist? 12 A. I am. 13 Q. And are you a practicing 14 gynecologic oncologist? 15 A. I am. 16 Q. Where do you practice? 17 A. I practice at Weill Cornell 18 Medical Center. 19 Q. Thank you. Are you here 20 today as a litigation expert for the 21 defendant, Johnson & Johnson? 22 A. I am. 23 Q. And this is not the first 24 time you've testified for the defendant</p>
Page 11	Page 13
<p>1 - - - 2 THE VIDEOGRAPHER: We are 3 now on the record. My name is 4 Henry Marte. I am a videographer 5 with Golkow Litigation Services. 6 Today's date is March 27, 7 2019, and the time is 9:53 a.m. 8 This videotaped deposition 9 is being held at 767 Fifth Avenue, 10 New York, New York in the matter 11 of Talcum Powder Litigation. 12 The deponent today is 13 Dr. Kevin Holcomb. 14 All appearances are noted on 15 the stenographic record. 16 Will the court reporter 17 please administer the oath. 18 - - - 19 ... KEVIN HOLCOMB, M.D., 20 having been first duly sworn, was 21 examined and testified as follows: 22 - - - 23 EXAMINATION 24 - - -</p>	<p>1 Johnson & Johnson regarding their talcum 2 powder products and risk of ovarian 3 cancer; is that true? 4 A. That's true. 5 Q. You testified in deposition 6 and at trial in the Ingham matter; is 7 that correct? 8 A. That's correct. 9 Q. Have you ever testified in 10 deposition or trial in any other talcum 11 powder ovarian cancer cases? 12 A. No, I haven't. 13 Q. Doctor, have you been sued 14 in connection with your own medical care 15 and treatment? 16 A. Yes, I have. 17 Q. How many times? 18 A. Probably about three. 19 Q. Doctor, if you testified in 20 a prior matter that it was four times, 21 does that refresh your recollection? 22 A. It's possible. 23 Q. Are all of the matters 24 wherein you were sued as a medical</p>

4 (Pages 10 to 13)

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<p>1 defendant resolved in one way or another?</p> <p>2 A. I believe there's still one</p> <p>3 outstanding.</p> <p>4 Q. What is the name of that</p> <p>5 matter?</p> <p>6 A. I'm trying to remember the</p> <p>7 patient's last name. I'm sorry. I don't</p> <p>8 remember the last name of the patient,</p> <p>9 sorry.</p> <p>10 Q. Where was that case venued?</p> <p>11 A. In New York.</p> <p>12 Q. And is it accurate, Doctor,</p> <p>13 that none of those matters concern</p> <p>14 diagnosis and/or treatment of ovarian</p> <p>15 cancer?</p> <p>16 A. That's true.</p> <p>17 Q. Is the nature of the matter</p> <p>18 that's still open in connection with</p> <p>19 performance of robotic surgery?</p> <p>20 A. Yes.</p> <p>21 Q. Thank you. So I don't know</p> <p>22 the last time that you've been deposed.</p> <p>23 Has it been since the Ingham matter?</p> <p>24 A. That was the last time.</p>	<p>1 Q. If you don't understand one</p> <p>2 of my questions, I'm bound to be unartful</p> <p>3 at times, and I don't want you to guess</p> <p>4 at what you think I'm asking you. Just</p> <p>5 please ask me to clarify. Because if you</p> <p>6 don't I'm going to assume that you</p> <p>7 understood my question. Is that fair?</p> <p>8 A. That's fair.</p> <p>9 Q. All right. I just want to</p> <p>10 kind of clear up a few definitions so</p> <p>11 we're on the same page. Okay?</p> <p>12 When I refer to talcum</p> <p>13 powder products today, will you</p> <p>14 understand that that includes Johnson &</p> <p>15 Johnson's Baby Powder and Shower to</p> <p>16 Shower products?</p> <p>17 A. Yes.</p> <p>18 Q. And in your report you use</p> <p>19 the word talc. Is that fair to assume</p> <p>20 that you are including Johnson &</p> <p>21 Johnson's Baby Powder and Shower to</p> <p>22 Shower products?</p> <p>23 MS. CURRY: Objection to</p> <p>24 form.</p>
Page 15	Page 17
<p>1 Q. All right. I'll go through</p> <p>2 the admonitions that typically accompany</p> <p>3 the deposition process so we've reviewed</p> <p>4 the most important ones. Okay?</p> <p>5 A. Okay.</p> <p>6 Q. All right. You've taken an</p> <p>7 oath to tell the truth under penalty of</p> <p>8 perjury. And, Doctor, you understand</p> <p>9 that that oath carries the same force and</p> <p>10 effect as if you were testifying in a</p> <p>11 court of law even though you are in an</p> <p>12 informal setting of this conference room.</p> <p>13 Do you understand that?</p> <p>14 A. I do.</p> <p>15 Q. And you've given depositions</p> <p>16 so you know that the court reporter is</p> <p>17 going to be taking down what's said, and</p> <p>18 we want to avoid talking over one</p> <p>19 another.</p> <p>20 You're doing a good job of</p> <p>21 waiting for my question. And I'll try to</p> <p>22 do the same, wait for your answer, so we</p> <p>23 get a clear record. Okay?</p> <p>24 A. Okay.</p>	<p>1 THE WITNESS: That's true.</p> <p>2 BY MS. GARBER:</p> <p>3 Q. What is a carcinogen?</p> <p>4 A. A carcinogen is something</p> <p>5 that causes cancer.</p> <p>6 Q. What does it mean to be</p> <p>7 carcinogenic?</p> <p>8 A. To have the ability to cause</p> <p>9 cancer.</p> <p>10 Q. What is a risk factor in the</p> <p>11 context of ovarian cancer?</p> <p>12 MS. CURRY: Objection to</p> <p>13 form.</p> <p>14 THE WITNESS: A risk factor</p> <p>15 is something that's associated</p> <p>16 with a higher likelihood of</p> <p>17 developing a cancer.</p> <p>18 BY MS. GARBER:</p> <p>19 Q. How do you define higher</p> <p>20 likelihood?</p> <p>21 A. More likely than if you</p> <p>22 hadn't been exposed.</p> <p>23 Q. To a medical degree of</p> <p>24 certainty?</p>

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<p>1 MS. CURRY: Objection to</p> <p>2 form.</p> <p>3 THE WITNESS: Typically that</p> <p>4 is something that I would relate</p> <p>5 to statistical analysis from</p> <p>6 studies. So there would be</p> <p>7 statistical definitions.</p> <p>8 BY MS. GARBER:</p> <p>9 Q. Rather than a medical degree</p> <p>10 of certainty, correct?</p> <p>11 MS. CURRY: Objection to</p> <p>12 form.</p> <p>13 THE WITNESS: My medical</p> <p>14 degree of certainty is often based</p> <p>15 on the statistical results of</p> <p>16 tests.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. How do you define a causal</p> <p>19 factor in the context of ovarian cancer?</p> <p>20 A. A causal factor would be</p> <p>21 something that you know caused the</p> <p>22 cancer.</p> <p>23 Q. How do you know if it caused</p> <p>24 cancer?</p>	<p>1 exposure to a known carcinogen and</p> <p>2 the development of the cancer that</p> <p>3 it's associated with, that it</p> <p>4 causes.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. You used the phrase "known</p> <p>7 carcinogen." How do you know if it's a</p> <p>8 known carcinogen?</p> <p>9 A. Well, if it's not a</p> <p>10 carcinogen, you can't really have a</p> <p>11 latency period.</p> <p>12 Q. In the performance of a</p> <p>13 study assessing whether or not it's a</p> <p>14 carcinogen, you can nevertheless still</p> <p>15 have a latency period for purposes of</p> <p>16 determining follow-up and things of that</p> <p>17 nature, correct?</p> <p>18 A. No, I don't think --</p> <p>19 MS. CURRY: Objection to</p> <p>20 form.</p> <p>21 THE WITNESS: I don't agree</p> <p>22 with that.</p> <p>23 BY MS. GARBER:</p> <p>24 Q. You don't?</p>
Page 19	Page 21
<p>1 MS. CURRY: Objection to</p> <p>2 form.</p> <p>3 THE WITNESS: Well, in the</p> <p>4 context of any individual patient,</p> <p>5 I can't say what caused their</p> <p>6 cancer. So I think it's</p> <p>7 impossible to say on an individual</p> <p>8 level that you've seen that.</p> <p>9 Outside of the individual, if you</p> <p>10 have a substance that can</p> <p>11 transform cells into a malignant</p> <p>12 phenotype in a cell culture for</p> <p>13 example, that would be evidence of</p> <p>14 a carcinogen.</p> <p>15 BY MS. GARBER:</p> <p>16 Q. What is your definition of</p> <p>17 the phrase latency period in the context</p> <p>18 of ovarian cancer?</p> <p>19 MS. CURRY: Objection to</p> <p>20 form.</p> <p>21 THE WITNESS: In the context</p> <p>22 of ovarian cancer -- well, the</p> <p>23 latency period in any cancer is</p> <p>24 the time between the initial</p>	<p>1 A. No.</p> <p>2 Q. All right. Do you have an</p> <p>3 opinion as to the latency period for</p> <p>4 ovarian cancer?</p> <p>5 A. In general, I think to</p> <p>6 define the latency period, you have to,</p> <p>7 one, start with a carcinogen, and then</p> <p>8 have data showing that you have an idea</p> <p>9 from the time of first exposure to that</p> <p>10 carcinogen to the development of the</p> <p>11 disease in question.</p> <p>12 So latency periods are going</p> <p>13 to be specific to whichever carcinogen</p> <p>14 you're speaking about.</p> <p>15 Q. Okay. Fair enough. Is</p> <p>16 serous ovarian cancer included under the</p> <p>17 umbrella of epithelial ovarian cancer?</p> <p>18 A. It is.</p> <p>19 Q. So in other words, serous</p> <p>20 ovarian cancer is ovarian cancer, right?</p> <p>21 A. It's a type of ovarian</p> <p>22 cancer, yes.</p> <p>23 Q. Let's talk about some of</p> <p>24 your qualifications, okay. Is it</p>

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<p style="text-align: right;">Page 22</p> <p>1 accurate, Doctor, that you've never 2 conducted research experiments regarding 3 the effects of talcum powder products and 4 its carcinogenicity? 5 A. That's true. 6 Q. And in your CV it shows that 7 you've never published regarding talcum 8 powder products and ovarian cancer, 9 right? 10 A. That's true. 11 Q. Is it also true that you've 12 never published regarding talcum powder 13 products, asbestos, and ovarian cancer? 14 A. That's true. 15 Q. You don't have any 16 publications about asbestos at all, 17 correct? 18 A. That's true. 19 Q. And you don't have any 20 publications with regard to talcum powder 21 products at all, correct? 22 A. That's true. 23 Q. Have you ever created or 24 written any presentations regarding</p>	<p style="text-align: right;">Page 24</p> <p>1 MS. CURRY: Object to the 2 form. 3 THE WITNESS: I'm a little 4 confused by the question. Because 5 if you are giving a lecture and 6 you're listing what you consider 7 risk factors, anything that's not 8 on that list you are not 9 mentioning as a risk factor, so 10 you're -- you're asking me have I 11 formed a negative? 12 BY MS. GARBER: 13 Q. Yeah, well, and I appreciate 14 you asking for clarification, because I 15 don't think my question was a good one, 16 so thank you. 17 I just want to be sure I 18 understand the -- the nature of your 19 presentation. 20 In your presentation you've 21 never actually used the word talc in any 22 of your presentations with regard to risk 23 factors and ovarian cancer; is that true? 24 A. No.</p>
<p style="text-align: right;">Page 23</p> <p>1 talcum powder products and ovarian 2 cancer? 3 A. No. I've created materials 4 on ovarian cancer and its risk factors 5 and general educational information for 6 the students -- medical students, 7 residents and fellows. But not 8 particularly with regard to talc. 9 Q. Did any of -- were those in 10 regard to risk factors and ovarian cancer 11 risk? 12 A. Yes. 13 Q. And did any of those 14 materials address the issue of talc one 15 way or another? 16 A. No. 17 Q. So let me clarify my 18 question. Is it accurate, Doctor, that 19 in those presentations that you've 20 created with regard to risk factors for 21 ovarian cancer, you've never made an 22 affirmative statement in any of those 23 that talc is not a risk factor; is that 24 true?</p>	<p style="text-align: right;">Page 25</p> <p>1 Q. What percentage of your 2 current patients have been diagnosed with 3 female reproductive cancer including 4 ovarian cancer? 5 A. I'd say about 70 percent of 6 my patients have malignant. 7 Q. Can you break that down by 8 way of ovarian cancer? 9 A. Out of that 70 percent, 10 probably 30 percent are ovarian. 11 Q. For the 30 or so percent 12 that have not been diagnosed with a 13 malignancy, do you counsel them with 14 regard to risk factors? 15 MS. CURRY: Objection to 16 form. 17 MS. GARBER: I wasn't done 18 yet. I'll start again. 19 BY MS. GARBER: 20 Q. With regard to the 21 30 percent of your patients that have not 22 been diagnosed with malignancy, is it 23 your custom and practice to counsel them 24 with regard to risk factors for cancer in</p>

<p style="text-align: right;">Page 26</p> <p>1 general?</p> <p>2 MS. CURRY: Objection to</p> <p>3 form.</p> <p>4 THE WITNESS: I take a</p> <p>5 formal history and a complete</p> <p>6 history, and I will address any</p> <p>7 issues that I may bring up. But</p> <p>8 giving a general lecture to each</p> <p>9 patient on the risk factors for</p> <p>10 cancers, it would only come up in</p> <p>11 questions.</p> <p>12 BY MS. GARBER:</p> <p>13 Q. When you take a history,</p> <p>14 Doctor, do you ask for a patient's</p> <p>15 exposure to asbestos?</p> <p>16 A. When I'm taking a history I</p> <p>17 do question patients about their</p> <p>18 occupations. And that would be the only</p> <p>19 thing I can think of where an asbestos</p> <p>20 exposure would likely be revealed.</p> <p>21 Q. Do you know how long it</p> <p>22 takes to conduct an asbestos history?</p> <p>23 MS. CURRY: Object to form.</p> <p>24 BY MS. GARBER:</p>	<p style="text-align: right;">Page 28</p> <p>1 any certain risk of any certain type of</p> <p>2 cancer?</p> <p>3 MS. CURRY: Object to the</p> <p>4 form.</p> <p>5 THE WITNESS: Well, I'm</p> <p>6 aware that heavy occupational</p> <p>7 exposure to asbestos has been</p> <p>8 determined by at least some to be</p> <p>9 a cause of ovarian cancer. So I</p> <p>10 guess if -- if it came out through</p> <p>11 a history that a patient had</p> <p>12 engaged in any of those type of</p> <p>13 practices, it would -- it would</p> <p>14 catch my attention.</p> <p>15 BY MS. GARBER:</p> <p>16 Q. Thank you.</p> <p>17 How many publications do you</p> <p>18 have to your credit about the causes of</p> <p>19 ovarian cancer over your career?</p> <p>20 A. I don't believe any of my</p> <p>21 publications are addressing the causes of</p> <p>22 ovarian cancer.</p> <p>23 Q. Women place talcum powder</p> <p>24 products on their genitals to stay fresh</p>
<p style="text-align: right;">Page 27</p> <p>1 Q. A thorough asbestos history</p> <p>2 of a patient?</p> <p>3 MS. CURRY: Same objection.</p> <p>4 THE WITNESS: No, I don't.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. When you take a history, do</p> <p>7 you ask patients about their exposure to</p> <p>8 talcum powder products?</p> <p>9 A. No.</p> <p>10 Q. Why do you ask them about</p> <p>11 their occupation and put that in the</p> <p>12 context of asbestos?</p> <p>13 MS. CURRY: Object to the</p> <p>14 form.</p> <p>15 THE WITNESS: That's not why</p> <p>16 I'm asking them about the</p> <p>17 occupational history. I was</p> <p>18 thinking, was there any chance of</p> <p>19 asbestos exposure coming up in my</p> <p>20 routine questioning, and I thought</p> <p>21 that would be the only area that I</p> <p>22 could think of it coming up.</p> <p>23 BY MS. GARBER:</p> <p>24 Q. And do you relate that to</p>	<p style="text-align: right;">Page 29</p> <p>1 and clean, right?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: I'm not sure</p> <p>5 why every individual uses talcum</p> <p>6 powder.</p> <p>7 BY MS. GARBER:</p> <p>8 Q. Do you understand that women</p> <p>9 place talcum powder products on their</p> <p>10 genitals?</p> <p>11 A. Yes, I do.</p> <p>12 Q. And do you understand that</p> <p>13 women place talcum powder products on</p> <p>14 their body?</p> <p>15 A. Yes, I do.</p> <p>16 Q. And of course, you</p> <p>17 understand that women in the United</p> <p>18 States were likely diapered with talcum</p> <p>19 powder products, correct?</p> <p>20 MS. CURRY: Object to the</p> <p>21 form.</p> <p>22 THE WITNESS: I'm not sure</p> <p>23 of the frequency of using it for</p> <p>24 diaper.</p>

<p style="text-align: right;">Page 30</p> <p>1 BY MS. GARBER: 2 Q. But you understand that at 3 least some portion of the population in 4 the United States was diapered with 5 talcum powder products, right? 6 A. I do understand that. 7 Q. Are you aware of data that 8 indicates that there are women now with 9 ovarian cancer who use talc on their 10 genitals in the 1950s, '60s, and early 11 1970s? 12 A. Could you repeat the 13 question. 14 Q. Sure. Are you aware of data 15 that indicates that there are women now 16 with ovarian cancer who used talc on 17 their genitals in the 1950s, '60s, and 18 early 1970s? 19 MR. MIZGALA: Object to 20 form. 21 MS. GARBER: Are we -- 22 sorry. Are we going to have one 23 person objecting for the group? I 24 thought that was CMO 11.</p>	<p style="text-align: right;">Page 32</p> <p>1 question. So I'll ask it again. 2 Doctor, are you aware of 3 data that indicates that there are women 4 now with ovarian cancer who used talc on 5 their genitals in the 1950s, '60s, and 6 '70s, any data? 7 MR. MIZGALA: Objection. 8 THE WITNESS: I'm not aware 9 of any specific data, no. 10 BY MS. GARBER: 11 Q. Do you agree generally, 12 Doctor, that there are women now in the 13 United States with ovarian cancer who 14 were diapered with Johnson & Johnson Baby 15 Powder in the 1950s, '60s, and early 16 1970s? 17 MS. CURRY: Object to the 18 form. 19 THE WITNESS: I don't have 20 any specific data on people being 21 diapered in the '50s and '60s. So 22 no, I'd have to say no. 23 BY MS. GARBER: 24 Q. Okay. Johnson & Johnson</p>
<p style="text-align: right;">Page 31</p> <p>1 MS. SHARKO: No that's not 2 the in the CMO. He doesn't 3 represent J&J. 4 MS. GARBER: I thought I 5 read one objection was for all. 6 MS. SHARKO: Sometimes we do 7 that. 8 BY MS. GARBER: 9 Q. Go ahead, Doctor. I forgot 10 my question. Do you remember it? 11 A. If you would repeat it, I'd 12 appreciate it. 13 Q. Sure. Let me see if you 14 answered it. So my question is, are you 15 aware of data that indicates women now 16 with ovarian cancer who used talcum 17 powder products on their genitals in the 18 early 1950s, '60s, and 1970s? 19 A. I think your question was am 20 I aware of any studies that suggest this. 21 And I'd have to say, I'd have to look 22 through each specific study to see do 23 they mention that in particular. 24 Q. Sure. That wasn't my</p>	<p style="text-align: right;">Page 33</p> <p>1 talcum powder products are cosmetic 2 products, not medications, right? 3 A. That's true. 4 Q. There's no medical benefits 5 for women to use defendant's talcum 6 powder products on their genitals, right? 7 MS. CURRY: Objection to 8 form. 9 THE WITNESS: No, I would 10 disagree with that. 11 BY MS. GARBER: 12 Q. There's medical benefits? 13 MS. CURRY: Object to the 14 form. 15 THE WITNESS: I think you're 16 using a term "medical benefit." 17 I'm not sure if you can first 18 clarify what you mean by medical 19 benefit. 20 BY MS. GARBER: 21 Q. Sure. You've done a 22 risk/benefit assessment of, say, a drug 23 or a medication, right? You know what 24 that means, don't you?</p>

<p style="text-align: right;">Page 34</p> <p>1 A. I do.</p> <p>2 Q. All right. And what do you</p> <p>3 think that means, when I say a</p> <p>4 risk/benefit in the context of a</p> <p>5 medication?</p> <p>6 A. A risk/benefit would be an</p> <p>7 analysis of the reason why the person is</p> <p>8 using the drug versus the risk of using</p> <p>9 the drug.</p> <p>10 Q. Right. And so the benefit</p> <p>11 is the reason they are using the drug,</p> <p>12 right?</p> <p>13 A. Right.</p> <p>14 Q. It has to have some sort of</p> <p>15 efficacy or benefit, right?</p> <p>16 A. Right.</p> <p>17 MS. CURRY: Object to the</p> <p>18 form.</p> <p>19 BY MS. GARBER:</p> <p>20 Q. So my question is now take</p> <p>21 that to talc and talcum powder products.</p> <p>22 There's no medical benefit</p> <p>23 in that context, is there?</p> <p>24 MS. CURRY: Object to the</p>	<p style="text-align: right;">Page 36</p> <p>1 MS. CURRY: Object to the</p> <p>2 form.</p> <p>3 THE WITNESS: That wasn't --</p> <p>4 no, I wouldn't. But I believe</p> <p>5 your question was, is there a</p> <p>6 medical benefit. And that's in</p> <p>7 the eye of the patient who's using</p> <p>8 it. And I would have to ask her</p> <p>9 why she's using it.</p> <p>10 For example, if someone says</p> <p>11 I'm diabetic, I get yeast</p> <p>12 infections when I'm moist, and I</p> <p>13 find that talcum keeps me dry and</p> <p>14 I have less yeast infections, I</p> <p>15 would say that's probably a</p> <p>16 medical benefit to that</p> <p>17 individual.</p> <p>18 BY MS. GARBER:</p> <p>19 Q. But talcum powder products</p> <p>20 do not fall under the rubric of a</p> <p>21 medication for purposes of regulatory;</p> <p>22 isn't that true?</p> <p>23 A. That's true. But things</p> <p>24 that fall under the rubric of medications</p>
<p style="text-align: right;">Page 35</p> <p>1 form.</p> <p>2 THE WITNESS: I'm assuming a</p> <p>3 practice that has endured for this</p> <p>4 long of time, there must be a</p> <p>5 perception on the people who are</p> <p>6 using it that they are benefiting</p> <p>7 from it in some form or fashion.</p> <p>8 BY MS. GARBER:</p> <p>9 Q. Sure. My question is a</p> <p>10 little different.</p> <p>11 Is -- is there a medical</p> <p>12 benefit to using talcum powder products</p> <p>13 in the same context as, say, a</p> <p>14 medication, drug, something like that?</p> <p>15 MS. CURRY: Object to the</p> <p>16 form.</p> <p>17 THE WITNESS: Yeah, I would</p> <p>18 say there is.</p> <p>19 BY MS. GARBER:</p> <p>20 Q. There isn't or --</p> <p>21 A. There is, I would say.</p> <p>22 Q. There is? So you would tell</p> <p>23 a patient to use talcum powder products</p> <p>24 for a medical benefit?</p>	<p style="text-align: right;">Page 37</p> <p>1 that we prescribe pretty regularly that</p> <p>2 are just quality of life issues are</p> <p>3 considered medications. I mean there are</p> <p>4 medications that prevent hot flashes. I</p> <p>5 don't believe anybody can point to a</p> <p>6 specific medical benefit of stopping hot</p> <p>7 flashes, but there's still medications</p> <p>8 for that use.</p> <p>9 Q. Doctor, you've been</p> <p>10 designated as an expert by Johnson &</p> <p>11 Johnson in the talcum powder litigation</p> <p>12 in the multi-district litigation; is that</p> <p>13 right?</p> <p>14 A. That's true.</p> <p>15 Q. And you understand that</p> <p>16 we're here today to take your deposition</p> <p>17 to get all your opinions and the bases of</p> <p>18 those opinions so we can prepare for</p> <p>19 briefings, hearings, and trial.</p> <p>20 Do you understand that?</p> <p>21 A. Yes.</p> <p>22 Q. When were you first retained</p> <p>23 in the talcum powder ovarian cancer</p> <p>24 litigation generally, not in the MDL,</p>

<p style="text-align: right;">Page 38</p> <p>1 just in general?</p> <p>2 A. The Ingham case was my only</p> <p>3 other involvement. And I believe that.</p> <p>4 That interaction began late. Probably</p> <p>5 November -- let me think. I guess that</p> <p>6 would be November of 2017 then.</p> <p>7 No, I'm sorry, more like</p> <p>8 January. I think it was more like</p> <p>9 January of 2018 then.</p> <p>10 Q. Were there any documents</p> <p>11 that would refresh your recollection in</p> <p>12 that regard?</p> <p>13 A. Not that I can think of.</p> <p>14 Q. You are not an asbestos</p> <p>15 expert, are you?</p> <p>16 A. No.</p> <p>17 Q. Before you were hired by</p> <p>18 Johnson & Johnson regarding talcum powder</p> <p>19 products, is it fair to say that your</p> <p>20 understanding of asbestos was pretty</p> <p>21 limited?</p> <p>22 MS. CURRY: Object to the</p> <p>23 form.</p> <p>24 THE WITNESS: I'm not sure</p>	<p style="text-align: right;">Page 40</p> <p>1 MS. GARBER: I do.</p> <p>2 BY MS. GARBER:</p> <p>3 Q. Doctor, if I could call your</p> <p>4 attention to --</p> <p>5 MS. GARBER: You know what,</p> <p>6 I am going to mark this as</p> <p>7 Exhibit 1.</p> <p>8 Can I have that back,</p> <p>9 Doctor?</p> <p>10 THE WITNESS: Sure.</p> <p>11 MS. GARBER: Sorry.</p> <p>12 (Document marked for</p> <p>13 identification as Exhibit</p> <p>14 Holcomb-1.)</p> <p>15 BY MS. GARBER:</p> <p>16 Q. I don't mean to throw these</p> <p>17 at you.</p> <p>18 A. I didn't take offense.</p> <p>19 Q. I apologize.</p> <p>20 So the front page of</p> <p>21 Exhibit 1 indicates that this is a</p> <p>22 deposition transcript on May 7th, 2018,</p> <p>23 in the Ingham case; is that correct?</p> <p>24 A. That's correct.</p>
<p style="text-align: right;">Page 39</p> <p>1 what you mean by limited.</p> <p>2 BY MS. GARBER:</p> <p>3 Q. Did you testify that it was</p> <p>4 pretty limited in a prior case?</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: When I -- if I</p> <p>8 had used the term limited, I guess</p> <p>9 I was referring to its role in</p> <p>10 gynecologic oncology.</p> <p>11 I'm not an expert in</p> <p>12 asbestos in any way. But I</p> <p>13 probably have the same amount of</p> <p>14 knowledge as anyone else.</p> <p>15 BY MS. GARBER:</p> <p>16 Q. Doctor, let's look at your</p> <p>17 prior testimony, if we can.</p> <p>18 I'm going to mark as</p> <p>19 Exhibit 1 -- no, I'm not going to mark it</p> <p>20 for now.</p> <p>21 Doctor, let me pass you</p> <p>22 over --</p> <p>23 MS. CURRY: Do you have a</p> <p>24 copy of the full transcript?</p>	<p style="text-align: right;">Page 41</p> <p>1 Q. And on the front page it</p> <p>2 indicates that you are the deponent,</p> <p>3 correct?</p> <p>4 A. That I am the?</p> <p>5 Q. Person who was being</p> <p>6 deposed.</p> <p>7 Does your name --</p> <p>8 A. Yes.</p> <p>9 Q. Yes, it is.</p> <p>10 And then, Doctor, if you</p> <p>11 turn to Page 56 of the transcript, lines</p> <p>12 2 through 8, I will read it.</p> <p>13 "Question: In fact, is it</p> <p>14 fair to say that, B, until you began</p> <p>15 consulting for Johnson & Johnson, your</p> <p>16 understanding of the different fibers of</p> <p>17 asbestos that exist was -- was pretty</p> <p>18 limited?</p> <p>19 And then question: "Is that</p> <p>20 fair to say?"</p> <p>21 And the answer was: "That's</p> <p>22 fair to say."</p> <p>23 So, Doctor, you agree that</p> <p>24 your understanding of asbestos was pretty</p>

<p style="text-align: right;">Page 42</p> <p>1 limited before you were hired by J&J, 2 correct? 3 MS. CURRY: Object to the 4 form. 5 THE WITNESS: Your prior 6 question just asked me about my 7 understanding of -- of asbestos 8 and was proceeded by my admitting 9 that I'm not an asbestos 10 specialist. 11 This testimony has to do 12 with my understanding of the 13 different fiber types of asbestos. 14 So I think there's a little bit of 15 a difference in what I was 16 testifying about here and your 17 question. But I don't see the 18 inconsistency. 19 BY MS. GARBER: 20 Q. Okay. Fair enough. 21 As to the fibers, before you 22 were hired by J&J and consulting for 23 them, you weren't even aware what an 24 amphibole was, right?</p>	<p style="text-align: right;">Page 44</p> <p>1 entailed what I thought was 2 necessary to offer an opinion on 3 the question of whether talc use 4 causes ovarian cancer. 5 BY MS. GARBER: 6 Q. At the time that you were 7 hired by Johnson & Johnson to do work in 8 the MDL, you already harbored -- harbored 9 causation opinions based on the work that 10 you did attendant to the Ingham cases, 11 correct? 12 A. That's correct. 13 Q. Isn't it true that in the 14 Ingham case you formed your opinion that 15 talcum powder products do not cause 16 ovarian cancer based on review of 61 17 published studies provided to you by 18 counsel for Johnson & Johnson? 19 MS. CURRY: Object to the 20 form. 21 THE WITNESS: That's -- 22 that's not true. My opinion that 23 talc did not cause ovarian cancer 24 preceded my involvement with</p>
<p style="text-align: right;">Page 43</p> <p>1 A. No. 2 Q. All right. When were you 3 first retained in the MDL talc 4 litigation? 5 A. That, I believe, was around 6 November of 2018. 7 Q. And what was your 8 understanding of your assignment when you 9 were hired in the MDL? 10 A. My understanding with that, 11 was that I was -- I was being asked for 12 my opinion based on my assessment of the 13 existing body of literature in the area 14 of whether talc causes ovarian cancers. 15 Q. We're going to get to the 16 body of literature in a moment. But were 17 you asked to do anything else? Or 18 what -- strike that. 19 What was your understanding 20 of your assignment? Did it -- did it 21 entail anything else? 22 MS. CURRY: Object to the 23 form. 24 THE WITNESS: I believe it</p>	<p style="text-align: right;">Page 45</p> <p>1 Ingham. 2 But, yes, that reliance list 3 helped further confirm that 4 feeling. 5 (Document marked for 6 identification as Exhibit 7 Holcomb-2.) 8 BY MS. GARBER: 9 Q. Doctor, I'm going to mark as 10 Exhibit 2 another deposition transcript. 11 Doctor, this is -- Exhibit 2 12 is the same front transcript, the Ingham 13 matter, and on your deposition taken on 14 May 7, 2018, right? 15 A. Yes. 16 Q. And at Page 57, Lines 10 17 through 14, question reads: 18 "Are the 61 reliance 19 materials cited in Exhibit 4 the complete 20 universe of the materials that you relied 21 upon in order to form your opinions in 22 that case? 23 "Answer: Yes." 24 Is your testimony different</p>

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<p>1 today, Doctor?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: No, it's not</p> <p>5 any different. The -- I can't</p> <p>6 think of anything that was outside</p> <p>7 of this data that I reviewed for</p> <p>8 this case that I had not seen</p> <p>9 prior.</p> <p>10 My testimony today is that</p> <p>11 my opinion about the causal</p> <p>12 relationship of talc and ovarian</p> <p>13 cancer preceded my involvement in</p> <p>14 Ingham. And your question asked</p> <p>15 me, or you stated in your question</p> <p>16 that my opinion was developed</p> <p>17 during Ingham, or that was my</p> <p>18 understanding of your question.</p> <p>19 And that's all I was trying to</p> <p>20 clarify.</p> <p>21 BY MS. GARBER:</p> <p>22 Q. Your universe of the data</p> <p>23 that you relied on in the Ingham matter</p> <p>24 consisted of 61 published studies</p>	<p>1 opinion in the Ingham case were the</p> <p>2 cohort studies which included gate --</p> <p>3 Gertig, Gates 2010, Houghton, and</p> <p>4 Gonzalez, Heller 1996, and IARC 2010 and</p> <p>5 IARC 2012.</p> <p>6 Is that correct?</p> <p>7 MS. CURRY: Object to form.</p> <p>8 THE WITNESS: No. You're --</p> <p>9 you're piquing my memory of</p> <p>10 this -- of this -- because I</p> <p>11 realize I only have two pages of</p> <p>12 it.</p> <p>13 But repeatedly the counsel</p> <p>14 who was taking my deposition</p> <p>15 attempted to limit, as you are</p> <p>16 defining them, as key pieces of</p> <p>17 information. My -- my opinion was</p> <p>18 based on the totality of all the</p> <p>19 data.</p> <p>20 That -- that answer just did</p> <p>21 not seem acceptable at the time,</p> <p>22 and there was this attempt to</p> <p>23 constantly drill down to me</p> <p>24 identifying a few studies that I</p>
Page 47	Page 49
<p>1 provided to you by counsel for J&J.</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 BY MS. GARBER:</p> <p>5 Q. Right?</p> <p>6 A. To be honest, some of the</p> <p>7 materials I found on my own. Some of it</p> <p>8 was provided by J&J.</p> <p>9 And again, I -- I don't know</p> <p>10 if you mean to be doing this, but I just</p> <p>11 want to clarify. If I read some of this</p> <p>12 material years ago and had come to an</p> <p>13 independent opinion about this, and then</p> <p>14 I read it again, I don't -- I just want</p> <p>15 to clarify, that my opinion is not being</p> <p>16 made during that case.</p> <p>17 Q. The 61 studies that were</p> <p>18 reflected on a reference list were the</p> <p>19 universe of studies that formed your</p> <p>20 opinion in the Ingham case, correct?</p> <p>21 A. Yes.</p> <p>22 Q. Thank you.</p> <p>23 You testified that the key</p> <p>24 literature that formed the basis of your</p>	<p>1 could say were important, but I</p> <p>2 repeatedly said then and I imagine</p> <p>3 I'll maybe have to do that again</p> <p>4 today, that it is the totality of</p> <p>5 the data that led me to my</p> <p>6 opinion.</p> <p>7 The universe, I believe, as</p> <p>8 you like to call it.</p> <p>9 BY MS. GARBER:</p> <p>10 Q. The totality of the evidence</p> <p>11 that formulated the opinions in this</p> <p>12 matter are listed in the reference list</p> <p>13 of -- lists of your expert report, which</p> <p>14 is dated February 25, 2019, and the</p> <p>15 supplemental reference list.</p> <p>16 Is that a true statement?</p> <p>17 MS. CURRY: Object to the</p> <p>18 form.</p> <p>19 THE WITNESS: That's a true</p> <p>20 statement, but there -- I -- I did</p> <p>21 also read the expert reports of</p> <p>22 others involved in the case. And</p> <p>23 they referenced other papers that</p> <p>24 are not in my reference list.</p>

<p style="text-align: right;">Page 50</p> <p>1 So I -- I'd have to say I</p> <p>2 came across more than -- than just</p> <p>3 what was in my reference list in</p> <p>4 my preparation.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. And in regard to what you</p> <p>7 just said, reading other experts' reports</p> <p>8 that were involved in the case, is it</p> <p>9 true that you read the experts' report,</p> <p>10 but did not read the underlying studies</p> <p>11 that were referenced in that given expert</p> <p>12 report?</p> <p>13 A. No.</p> <p>14 MS. CURRY: Object to the</p> <p>15 form.</p> <p>16 THE WITNESS: That's exactly</p> <p>17 the opposite of what I'm saying.</p> <p>18 I'm saying at times I would read</p> <p>19 something in an expert report that</p> <p>20 piqued my interest, and I would go</p> <p>21 back and pull that paper and read</p> <p>22 the paper.</p> <p>23 BY MS. GARBER:</p> <p>24 Q. And then you didn't list it</p>	<p style="text-align: right;">Page 52</p> <p>1 that I reviewed the other experts'</p> <p>2 reports and the literature that</p> <p>3 they were basing their opinions</p> <p>4 on, I did in some cases.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. Doctor, you understand that</p> <p>7 I am entitled to know the materials that</p> <p>8 you read, reviewed and relied upon in</p> <p>9 formulating your opinions. You</p> <p>10 understand that, right?</p> <p>11 A. Yes.</p> <p>12 MS. CURRY: I can possibly</p> <p>13 clarify --</p> <p>14 MS. GARBER: I don't --</p> <p>15 MS. CURRY: -- the issue if</p> <p>16 it's helpful.</p> <p>17 MS. GARBER: Let me -- let</p> <p>18 me just finish this line of</p> <p>19 questioning, Ms. Curry. Thank you</p> <p>20 very much.</p> <p>21 BY MS. GARBER:</p> <p>22 Q. And, Doctor, is it your</p> <p>23 testimony that aside from the reference</p> <p>24 lists that are attached to your expert</p>
<p style="text-align: right;">Page 51</p> <p>1 on your reference list?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: It was not</p> <p>5 part of my expert report. My</p> <p>6 expert report had already been</p> <p>7 completed.</p> <p>8 BY MS. GARBER:</p> <p>9 Q. Did you know that a</p> <p>10 supplemental reference list was just</p> <p>11 produced in this matter?</p> <p>12 A. Yes.</p> <p>13 Q. Are you telling me that you</p> <p>14 have reviewed other materials that do not</p> <p>15 appear on any of the reference lists that</p> <p>16 are attached to your expert report or the</p> <p>17 supplemental materials that were just</p> <p>18 produced on the 25th?</p> <p>19 MS. CURRY: Object to the</p> <p>20 form.</p> <p>21 THE WITNESS: I believe that</p> <p>22 it -- I don't know exactly the</p> <p>23 list that you have of everything I</p> <p>24 reviewed. But if it's not clear</p>	<p style="text-align: right;">Page 53</p> <p>1 report and the supplemental materials,</p> <p>2 that there are papers that you have</p> <p>3 reviewed that are not listed there?</p> <p>4 MS. CURRY: Object to the</p> <p>5 form.</p> <p>6 THE WITNESS: I would have</p> <p>7 to review my reference list and</p> <p>8 see what's on there. Or all the</p> <p>9 information that was handed over</p> <p>10 to you as far as what I reviewed.</p> <p>11 But, again, I did look</p> <p>12 through other experts' reports.</p> <p>13 If they referenced a study, in</p> <p>14 most cases, I did not go back and</p> <p>15 review the study. I just read</p> <p>16 what they were saying.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. Can you think of a given</p> <p>19 study that you were reading an expert</p> <p>20 report and it piqued your interest, to</p> <p>21 use your words, and you went and pulled</p> <p>22 it and read it?</p> <p>23 A. No, I can't think of any</p> <p>24 specific papers.</p>

<p style="text-align: right;">Page 54</p> <p>1 MS. GARBER: Go ahead, 2 Ms. Curry. Maybe you can clarify. 3 MS. CURRY: Just to clarify, 4 we have on the supplemental list, 5 in addition to the expert reports, 6 the deposition transcripts and 7 exhibits to the depositions, and 8 so I believe that the additional 9 articles that would have been 10 reviewed by Dr. Holcomb are 11 included in those exhibits. 12 MS. GARBER: I see. So what 13 I'm supposed to do is I'm supposed 14 to go pull the deposition, and 15 pull the exhibits and then move 16 those forward to the reference 17 list to understand his library? 18 MS. CURRY: It's the 19 deposition that you actually took 20 of Dr. Saenz, the exhibits that 21 you presented to her in its 22 totality were provided to 23 Dr. Holcomb after that deposition. 24</p>	<p style="text-align: right;">Page 56</p> <p>1 BY MS. GARBER: 2 Q. Did you prepare the 3 supplemental reference list? 4 A. Yes. I don't remember if 5 there's any overlap I'm saying. 6 Q. Did you type it up yourself? 7 A. No. 8 Q. How was it that that was 9 prepared? 10 A. How was what? 11 MS. CURRY: Object to the 12 form. 13 BY MS. GARBER: 14 Q. The supplemental reference 15 list. 16 A. The lawyers asked me, was 17 there anything else that I had reviewed, 18 and I just gave them a list of which 19 papers I had reviewed. 20 Q. Thank you. What did you do 21 to prepare for today's deposition? 22 A. I reviewed the epidemiologic 23 papers on talc, and in some cases just 24 powder use and ovarian cancer.</p>
<p style="text-align: right;">Page 55</p> <p>1 BY MS. GARBER: 2 Q. And which of those papers, 3 after reading Dr. Saenz's deposition, 4 which of those -- strike that. 5 Which of those exhibits 6 after reading Dr. Saenz's deposition did 7 you pull and read, if any? 8 A. I didn't have to pull any of 9 them of them. The paper was in the -- in 10 the exhibit. And I don't remember which 11 one. I believe there were about 30 12 exhibits. So if you show me the list I 13 can show you which ones I read. 14 Q. Did you read every single 15 one of them? 16 A. No. 17 Q. Do any come to mind? 18 A. I just said no. 19 Q. Are some of them included in 20 the supplemental reference list that was 21 just produced a couple days ago? 22 MS. CURRY: Object to the 23 form. 24 THE WITNESS: I don't know.</p>	<p style="text-align: right;">Page 57</p> <p>1 I looked at the basic 2 science papers, some that addressed 3 mechanistic questions. 4 I looked at some of the 5 basic science papers on theories of 6 carcinogenesis. 7 I reviewed -- that's pretty 8 much it. I pretty much went through that 9 body of literature, so... 10 Q. The epidemiological 11 literature that you looked at appear on 12 the reference lists that are attached to 13 your expert report and the supplemental 14 reference list that was just produced? 15 A. Yes. 16 Q. And when you say the basic 17 science on mechanism of carcinogenicity, 18 what data are those? 19 MS. CURRY: Object to the 20 form. 21 MS. SHARKO: Can you keep 22 your voice a little louder, 23 please? 24 MS. GARBER: Sure.</p>

<p style="text-align: right;">Page 58</p> <p>1 MS. SHARKO: Thank you.</p> <p>2 THE WITNESS: Could you</p> <p>3 repeat the question as well.</p> <p>4 BY MS. GARBER:</p> <p>5 Q. The basic science with</p> <p>6 regard to mechanism of carcinogenicity,</p> <p>7 what specific studies are those?</p> <p>8 MS. CURRY: Object to the</p> <p>9 form.</p> <p>10 THE WITNESS: I don't</p> <p>11 remember the specific studies</p> <p>12 because most of that came from</p> <p>13 reviewing other experts' expert</p> <p>14 reports.</p> <p>15 BY MS. GARBER:</p> <p>16 Q. Do those studies that you</p> <p>17 reviewed in connection with preparation</p> <p>18 for your deposition appear on the</p> <p>19 reference lists that you have produced?</p> <p>20 A. Again, in those cases I</p> <p>21 wasn't pulling the whole paper. I was</p> <p>22 just reading expert reports. So no, it's</p> <p>23 not.</p> <p>24 Q. When you say science with</p>	<p style="text-align: right;">Page 60</p> <p>1 from the time that you were retained by</p> <p>2 Johnson & Johnson in the MDL through</p> <p>3 today's deposition, you prepared about</p> <p>4 90 hours?</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: That's true.</p> <p>8 BY MS. GARBER:</p> <p>9 Q. And your pay rate is \$850 an</p> <p>10 hour?</p> <p>11 A. That's true.</p> <p>12 Q. Doctor, in the Ingham case,</p> <p>13 it was your opinion that occupational</p> <p>14 exposure to asbestos couldn't cause</p> <p>15 ovarian cancer; is that correct?</p> <p>16 MS. CURRY: Object to the</p> <p>17 form.</p> <p>18 THE WITNESS: Yes.</p> <p>19 BY MS. GARBER:</p> <p>20 Q. And is that still your</p> <p>21 opinion today?</p> <p>22 A. As with my deposition at the</p> <p>23 time of Ingham, I was quoting IARC's</p> <p>24 monograph on the topic. And also offered</p>
<p style="text-align: right;">Page 59</p> <p>1 regard to basic science with regard to</p> <p>2 carcinogens, the theories of carcinogens,</p> <p>3 that would be your same answer as the</p> <p>4 prior one; it was in the context of</p> <p>5 reading expert reports?</p> <p>6 A. That's true.</p> <p>7 Q. How many hours did you</p> <p>8 prepare for today's deposition?</p> <p>9 A. Do you mean from the</p> <p>10 beginning of my engagement in the MDL or?</p> <p>11 Q. Specifically in connection</p> <p>12 with just getting ready for today. I'm</p> <p>13 going to get to that, Doctor. And thanks</p> <p>14 for the clarification.</p> <p>15 But just with regard to</p> <p>16 preparing for today's deposition.</p> <p>17 A. I'm not sure -- I asked you</p> <p>18 if there was a difference. But I guess</p> <p>19 in essence there really isn't. I've been</p> <p>20 preparing for this deposition from the</p> <p>21 beginning of my engagement.</p> <p>22 So I would say probably</p> <p>23 about 90 hours.</p> <p>24 Q. So is it your testimony that</p>	<p style="text-align: right;">Page 61</p> <p>1 some critiques of that finding, which</p> <p>2 included concerns about</p> <p>3 misclassification, concerns about whether</p> <p>4 environmental exposures really supported</p> <p>5 the findings or not. And so, you know, I</p> <p>6 spent quite a bit of time in the Ingham</p> <p>7 deposition going through this. But I</p> <p>8 accepted IARC's findings.</p> <p>9 Q. So my question is a little</p> <p>10 narrower.</p> <p>11 A. Mm-hmm.</p> <p>12 Q. Is it your opinion today</p> <p>13 that occupational exposure to asbestos</p> <p>14 can cause ovarian cancer?</p> <p>15 A. In my -- it's my opinion</p> <p>16 that based on the five heavy occupational</p> <p>17 exposure papers cited in that IARC</p> <p>18 monograph, that in those specific</p> <p>19 situations, yes, those exposures did</p> <p>20 contribute to ovarian cancer.</p> <p>21 Q. Doctor, did you testify in</p> <p>22 Ingham that occupational exposure to</p> <p>23 asbestos can cause ovarian cancer?</p> <p>24 MS. CURRY: Object to the</p>

<p style="text-align: right;">Page 62</p> <p>1 form.</p> <p>2 THE WITNESS: Again, if I</p> <p>3 did, it's to the degree of -- I --</p> <p>4 I don't have any opinion outside</p> <p>5 of the literature that I read on</p> <p>6 the topic. And the only</p> <p>7 literature I've read on the topic</p> <p>8 are those five papers cited in the</p> <p>9 monograph. So if I said it during</p> <p>10 Ingham, it's based on the same</p> <p>11 data that I'd be saying it based</p> <p>12 on today.</p> <p>13 BY MS. GARBER:</p> <p>14 Q. Was it your testimony that</p> <p>15 occupational exposure to asbestos can</p> <p>16 cause ovarian cancer?</p> <p>17 MS. CURRY: Object to the</p> <p>18 form.</p> <p>19 THE WITNESS: I believe so.</p> <p>20 BY MS. GARBER:</p> <p>21 Q. And is it your opinion today</p> <p>22 that occupational exposure to asbestos</p> <p>23 can cause ovarian cancer?</p> <p>24 MS. CURRY: Object to the</p>	<p style="text-align: right;">Page 64</p> <p>1 in that situation, because the</p> <p>2 question is so broad to say in an</p> <p>3 occupational setting. And I only</p> <p>4 have data on a few different</p> <p>5 settings where it was shown. And</p> <p>6 so I'm going to restrict my</p> <p>7 opinion to the data I've read, and</p> <p>8 the data I've read on those</p> <p>9 specific occupational settings.</p> <p>10 BY MS. GARBER:</p> <p>11 Q. So, Doctor, I'm going to</p> <p>12 mark as Exhibit 3 --</p> <p>13 (Document marked for</p> <p>14 identification as Exhibit</p> <p>15 Holcomb-3.)</p> <p>16 BY MS. GARBER:</p> <p>17 Q. -- prior deposition</p> <p>18 testimony in the Ingham matter.</p> <p>19 Doctor, this was deposition</p> <p>20 testimony from May 7, 2018, right?</p> <p>21 A. Yes.</p> <p>22 Q. And if you turn to Page 103,</p> <p>23 Lines 7 through 19, it reads:</p> <p>24 "Question: Do you believe</p>
<p style="text-align: right;">Page 63</p> <p>1 form.</p> <p>2 THE WITNESS: Once again,</p> <p>3 it's my opinion that occupational</p> <p>4 exposure in those settings as</p> <p>5 described in the IARC monograph,</p> <p>6 which would be, you know, the --</p> <p>7 the women who participated in gas</p> <p>8 mask productions, or cement</p> <p>9 factories in pre-World War II</p> <p>10 Italy, and in those specific</p> <p>11 situations, yes, I think that</p> <p>12 there's enough evidence to deduce</p> <p>13 that -- that exposure increased</p> <p>14 the risk of ovarian cancer.</p> <p>15 BY MS. GARBER:</p> <p>16 Q. So if I asked you in any</p> <p>17 hearing, Doctor, can occupational</p> <p>18 exposure to asbestos cause ovarian</p> <p>19 cancer, and I asked you for a yes or no</p> <p>20 question, would the answer be yes?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: I don't think</p> <p>24 you can ask a yes or no question</p>	<p style="text-align: right;">Page 65</p> <p>1 that asbestos exposure can cause ovarian</p> <p>2 cancer?"</p> <p>3 And your answer is: "Yes.</p> <p>4 We did go over this before and I do</p> <p>5 believe that occupational exposure to</p> <p>6 asbestos can cause ovarian cancer."</p> <p>7 And it goes on to say: "Is</p> <p>8 that because you believe that asbestos</p> <p>9 fibers in the ovaries increases the risk</p> <p>10 of developing ovarian cancer?"</p> <p>11 And your answer was: "I</p> <p>12 have no idea of the mechanism by which it</p> <p>13 could occur."</p> <p>14 Is that still your testimony</p> <p>15 today?</p> <p>16 MS. CURRY: Object to the</p> <p>17 form. And to showing one page of</p> <p>18 the deposition transcript.</p> <p>19 MS. GARBER: I don't think</p> <p>20 we're going to have any speaking</p> <p>21 objections here today, Ms. Curry.</p> <p>22 I --</p> <p>23 MS. CURRY: It's just --</p> <p>24 you're -- he's referring back to</p>

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<p>1 testimony and you're not showing 2 him the prior testimony. 3 MS. GARBER: As you well 4 know, Ms. Curry, the proper 5 objection is, "Objection to form." 6 MS. SHARKO: I think she's 7 doing fine. 8 MS. GARBER: I'm sure you 9 do. 10 BY MS. GARBER: 11 Q. Go ahead, Doctor. 12 A. So, in my answer I said yes, 13 we did go over this before, which sort of 14 supports the conversation I was saying 15 without all the things I said before, you 16 don't know how to interpret that. 17 But I know what -- how to 18 interpret that. It's what I'm just 19 saying, we had gone over this multiple 20 times being asked the same question, 21 similar to what's happening now. And I 22 kept restricting it to not stepping 23 outside of -- and -- and this is a common 24 theme that I think we're going to revisit</p>	<p>1 that occupational exposure to asbestos 2 can cause cancer. 3 A. Are you -- 4 Q. That's your -- 5 MS. CURRY: Same objections. 6 BY MS. GARBER: 7 Q. That's your answer, right? 8 A. My answer has a piece of it 9 that you can't, or don't, or you're not 10 interested in. And I think it's just as 11 important as the part that you're 12 focusing on that says yes, we did go over 13 this before. 14 I'd be happy to go through 15 the entire transcript of this area. I 16 think you'll find what I'm referring to 17 as being consistent, that I was trying to 18 say that my opinions about exposure in 19 the occupational setting was restricted 20 to the few occupational settings that 21 were defined in the IARC monograph. And 22 that is what I'm trying to tell you now. 23 Because I said we've gone 24 through this before, I'm referring to</p>
Page 67	Page 69
<p>1 over and over today. 2 This idea of making comments 3 and conclusions that go outside of the 4 specific findings of your studies, and 5 purists and careful clinicians and 6 scientists don't do that. And so if you 7 ask me does any occupational exposure 8 increase your risk of asbestos, how would 9 I know? I only have a body of literature 10 that looks at specific situations. And 11 that's the only situation that I'm going 12 to speak to -- speak about. 13 So when I said yes, we did 14 go over this before, that's because this 15 was about who knows how many times I had 16 been asked the same question with the 17 same answer. 18 MS. GARBER: Objection. 19 Motion to strike as nonresponsive. 20 BY MS. GARBER: 21 Q. Doctor, you answered to the 22 question, do you believe that asbestos 23 exposure can cause ovarian cancer, yes. 24 We did go over this. And I do believe</p>	<p>1 those qualifications. 2 Q. I'm just trying to get your 3 opinions here today. You understand 4 that, right? 5 A. I don't. I don't. I don't 6 think so. Because my opinion on this is 7 so clear that I believe that if you're 8 making gas masks in a World War II, or 9 pre-World War II or during World War II 10 factory, or if you're mixing cement in 11 Italy around the same time, that I'd be 12 concerned about your risk of ovarian 13 cancer. 14 Outside of those specific 15 situations, I don't have an opinion. 16 Q. You've read the IARC 17 monograph from 2012 with regard to 18 asbestos, right? 19 A. Yes. 20 Q. And, in fact, it's on your 21 reference list in this matter? 22 A. Yes. 23 Q. And, Doctor, do you think 24 that the IARC 2002 monograph limits risk</p>

<p style="text-align: right;">Page 70</p> <p>1 of ovarian cancer to occupational 2 exposure? 3 MS. CURRY: I believe you 4 mean IARC 2012. And objection to 5 form. 6 MS. GARBER: Thank you. 7 BY MS. GARBER: 8 Q. So I'll redo that question. 9 Doctor, do you think the 10 IARC monograph of 2012 limits risk of 11 ovarian cancer to occupational exposure? 12 MS. CURRY: Object to the 13 form. 14 THE WITNESS: I'm telling 15 you my -- my opinion, which is 16 what I think you're trying to get 17 at, is that the only data on 18 occupational exposure that showed 19 an increased risk of ovarian 20 cancer were those same specific 21 settings that I am mentioning to 22 you. And so my personal opinion 23 is that I can only speak towards 24 the relationship of asbestos</p>	<p style="text-align: right;">Page 72</p> <p>1 I just got. So I apologize. 2 BY MS. GARBER: 3 Q. Doctor, if you could turn to 4 Page 219 of the monograph. And, Doctor, 5 you can look up here. It will go quicker 6 this way if you just -- 7 A. I'd rather look at it, if 8 that's okay. 9 You said 219. Oh. 10 Q. Yeah. Why don't you just 11 look up here. I'm just going to read 12 something. 13 219, it says, exposure data, 14 identification of the agent. 15 A. 219 -- but what I saw at the 16 back. 17 Q. Doctor, if you can just look 18 up here. 19 MS. CURRY: I'm sorry. The 20 exhibit that you just handed him 21 does not have a Page 219, is the 22 problem. 23 THE WITNESS: So I just -- I 24 just want to make sure that what</p>
<p style="text-align: right;">Page 71</p> <p>1 exposure in an occupational 2 setting and ovarian cancer with 3 regard to those specific settings. 4 (Document marked for 5 identification as Exhibit 6 Holcomb-4.) 7 BY MS. GARBER: 8 Q. I'm going to mark as 9 Exhibit 4 the IARC monograph of 2012 10 Volume 100-C, titled "Arsenic, Metals, 11 Fibres, and Dust: A Review of Human 12 Carcinogens." 13 And I apologize. I don't 14 have a full copy of this with me. 15 A. Sure. Thank you. 16 MS. SHARKO: Do you have a 17 copy for us? 18 MS. GARBER: That's what I 19 just said, Ms. Sharko. I 20 apologize. I don't have a full 21 copy. I have a page that I'm 22 going to question him from, but 23 not all the pages. 24 It's based on testimony that</p>	<p style="text-align: right;">Page 73</p> <p>1 you've given me is what you're 2 reading. 3 MS. GARBER: Yeah, that's 4 fine. 5 BY MS. GARBER: 6 Q. Why don't you just look up 7 here at the Elmo. 8 A. Are we looking at the same 9 thing? 10 Q. Yes. Yes. I will cure it 11 on the break. 12 MS. SHARKO: If the doctor 13 wants a paper copy, number one 14 he's allowed to have it, and 15 number two -- 16 MS. GARBER: Well, you -- 17 you have one. 18 MS. SHARKO: -- I'm three 19 seats closer to the screen, and I 20 can't even read that. 21 MS. GARBER: You have one, 22 right? 23 MS. SHARKO: So I don't know 24 how he can.</p>

<p style="text-align: right;">Page 74</p> <p>1 MS. CURRY: This is the one 2 page. I have the full. 3 THE WITNESS: Okay. So -- 4 BY MS. GARBER: 5 Q. So at Page 219, Doctor, do 6 you see that it says asbestos, and then 7 it lists the different fibers, correct? 8 The different types of asbestos? 9 A. I don't know -- can you 10 please -- 11 Q. The title. The title. 12 A. Yes. 13 Q. The top. 14 A. The -- correct. 15 Q. All right. And then under 16 exposure data, Number 1, it says, 17 "Identification of the agent." 18 Do you see that? 19 A. Yes. 20 Q. And then about halfway 21 through the paragraph, it says, "The 22 conclusions reached in this monograph 23 about asbestos and its carcinogenic 24 risk" --</p>	<p style="text-align: right;">Page 76</p> <p>1 this monograph about asbestos and its 2 carcinogenic risks apply to these six 3 types of fibers wherever they are found." 4 And I'm going to assume that the 5 conclusions are going to be based on the 6 studies that they cite. 7 Q. Doctor, we don't want to 8 make conclusions. My question is, does 9 that what the monograph say? 10 A. That's what the monograph -- 11 Q. Did I read that correctly? 12 A. You read the monograph 13 correctly. 14 Q. And I have no further 15 question for you. 16 MS. GARBER: Motion to 17 strike everything besides saying 18 yes, that's what it says. 19 MS. SHARKO: Does that mean 20 that we're done for today? 21 BY MS. GARBER: 22 Q. Doctor, is that what the 23 monograph says on Page 219? 24 A. That's what the monograph</p>
<p style="text-align: right;">Page 75</p> <p>1 A. I'm sorry. I'm still just 2 getting up to where you are. 3 Q. Just look -- just look up at 4 here, Doctor. 5 A. Ma'am, if it's okay with 6 you, we went through the trouble to get 7 this because it's easier for me to see. 8 I'm going to use this if you just bear 9 with me. 10 Q. Okay. Well, then you can 11 look up here to see where I'm reading. 12 A. I've got you. 13 Q. Okay. "The conclusions 14 reached in this monograph about asbestos 15 and its carcinogenic risks apply to these 16 six types of fibers wherever they are 17 found, and that includes talc containing 18 asbestiform fibers." 19 Correct? Is that what it 20 says? 21 A. That's what it says. 22 Q. Doctor, that's my only 23 question. Is that what it says? 24 A. "The conclusions reached in</p>	<p style="text-align: right;">Page 77</p> <p>1 says. I disagree with that. Yes. 2 Q. Okay. What part do you 3 disagree with? 4 MS. CURRY: Object to the 5 form. 6 THE WITNESS: I think -- I 7 was getting at this before, and I 8 think that a lot of what we're 9 going to get into today makes that 10 same mistake. You can't make 11 conclusions about things that you 12 haven't studied. And if you only 13 study a certain setting, and 14 you're able to show that in this 15 setting it causes ovarian cancer, 16 how can you reliably expand that 17 finding to situations that you've 18 never even looked at? 19 And I don't care if IARC 20 puts it in writing and says they 21 are going to do that. The 22 question is, do I accept that? Do 23 I accept that if you show me that 24 it causes cancer if you're making</p>

<p style="text-align: right;">Page 78</p> <p>1 gas masks, that means it causes 2 cancer in any other situation. 3 I think that's -- clearly is 4 what IARC said they did. I think 5 that's a problem. And I already 6 explained to you some of the other 7 issues that I have with IARC. I 8 mean, we all can make mistakes. 9 There's other issues with IARC. I 10 mean, the studies, even in the 11 ones that I accept, there's 12 misclassification issues. 13 In fact, if you look at the 14 studies where they do pathologic 15 confirmation, the increased risk 16 is attenuated to the baseline. 17 And so, you know, part of my 18 being able to give my opinion here 19 is my years of practice. And I've 20 had the experience of debulking 21 somebody who I thought had ovarian 22 cancer who ended up having 23 mesothelioma. 24 So I know the difficulties</p>	<p style="text-align: right;">Page 80</p> <p>1 settings where they found that 2 it's associated with, there are 3 weaknesses in their findings. To 4 extend that definition outside to 5 any occupational exposure that 6 they haven't examined, I think is 7 problematic. 8 BY MS. GARBER: 9 Q. Doctor, what was my 10 question? 11 A. Did IARC make that 12 statement, and I said yes. 13 Q. Thank you. 14 MS. GARBER: Motion to 15 strike everything besides that. 16 MS. SHARKO: Well, that 17 wasn't the question you asked. 18 BY MS. GARBER: 19 Q. Doctor, you disagree -- 20 MS. CURRY: He answered your 21 question. 22 MS. O'DELL: All right, 23 Susan. We went over this 24 earlier -- I think -- not earlier</p>
<p style="text-align: right;">Page 79</p> <p>1 in being able to tell the 2 difference between the two. 3 BY MS. GARBER: 4 Q. Doctor, I'm going to get to 5 your report. 6 MS. CURRY: Were you 7 finished with your response? 8 THE WITNESS: No. 9 And I'm also aware that, you 10 know, there was not even a 11 diagnosis code for malignant 12 mesothelioma at a time that -- an 13 international diagnosis code, an 14 ICD-9 code for mesothelioma during 15 this time. 16 And I'm sure that the 17 immunohistochemical test that 18 helped to distinguish between 19 ovarian cancer and primary 20 peritoneal cancer and malignant 21 mesothelioma were not developed at 22 that time. 23 So, yes, I take IARC at what 24 they're saying. But even in the</p>	<p style="text-align: right;">Page 81</p> <p>1 this week, last week. I think 2 Dawn is doing the objections. 3 There's no need for you to add the 4 commentary. 5 MS. SHARKO: Well, why -- 6 why are you talking if it's one 7 lawyer per side? You should have 8 been there yesterday when you had 9 three people on your side talking 10 at us. 11 MS. O'DELL: Well, I 12 can't -- can't speak to yesterday. 13 But we've had this discussion, you 14 and I, and -- 15 MS. CURRY: As the person 16 making objections, I do want to 17 put on the record that the 18 question that was asked was what 19 part of -- of IARC do you disagree 20 with, and so Dr. Holcomb's 21 response was directly responsive 22 to that question. 23 Thank you. 24</p>

<p style="text-align: right;">Page 82</p> <p>1 BY MS. GARBER: 2 Q. Doctor, we will get to your 3 report and what you say about asbestos. 4 My question was simply, 5 Number 1, at Page 219 where I read: "Is 6 that what the monograph says?" 7 And I think your testimony 8 was, yes, that's what the monograph says, 9 correct? 10 A. That's what the monograph 11 says. 12 Q. All right. And then I 13 wanted to show you next at Page 232 with 14 regard to your testimony about the 15 populations? 16 A. I'm sorry. 17 Q. 232 -- 18 A. 232, right. 19 Q. -- under human exposure. 20 A. This is the -- 21 Q. Are you there? 22 A. I'm just a little confused, 23 because this is talking about talc. And 24 we were talking about asbestos.</p>	<p style="text-align: right;">Page 84</p> <p>1 it says. 2 It says, "Consumer products, 3 e.g., cosmetic, pharmaceuticals, are the 4 primary sources of exposure to talc for 5 the general population. Inhalation and 6 dermal contact through" -- "i.e., through 7 perineal application of talcum powders, 8 are the primary routes of exposure." 9 Did I read that correctly? 10 A. Yes. 11 Q. So that is indicating that 12 talcum powder products and exposure in 13 the general population, correct? 14 MS. CURRY: Object to form. 15 BY MS. GARBER: 16 Q. That's on Page 232? 17 A. I -- I just want to -- I 18 know we're only picking out this one page 19 to read, but it's a little confusing to 20 me since we had started reading a 21 monograph on asbestos and this seems to 22 be dealing with talc. 23 So I turn one page back. 24 This is a section on talc containing</p>
<p style="text-align: right;">Page 83</p> <p>1 Are we in the same -- 2 Q. Are you -- 3 A. I think I'm in a 4 different -- 5 Q. -- are you on Page 232? 6 A. Yes, but I don't know if I'm 7 reading the same thing you are. You are 8 talking about the monograph on -- 9 Q. On asbestos. 10 A. Right. I think I'm in the 11 wrong -- 12 Q. No, that is -- that is -- 13 A. This is the right one? Oh, 14 2012. So this is the one. 15 Q. Okay. Doctor, under 1.6.5, 16 it says, "Human Exposure"? 17 A. Yeah. 18 Q. And then it indicates 19 "Exposure of the General Population." 20 Is that the heading? 21 A. Exposure of the general 22 population. And it's -- yeah, exposure 23 to talc for the general population. 24 Q. Okay. Well, let's read what</p>	<p style="text-align: right;">Page 85</p> <p>1 asbestiform fibers. 2 So this area that we are 3 talking about -- I -- I don't know if 4 they are talking about -- what -- I'm a 5 little unclear of what they are talking 6 about here, with the general -- are they 7 talking about asbestiform fibers? Are 8 they talking about -- I'm not sure. 9 Q. Let me see if I can help 10 you. 11 A. Thank you. 12 Q. So turning back to 219. 13 A. Yes. 14 Q. Where the monograph says, 15 "The conclusions reached by the monograph 16 about asbestos and its carcinogenic risks 17 apply to these six types of fibers 18 wherever they are found -- thereby 19 meaning asbestos -- and that includes 20 talc containing asbestiform fibers." 21 So this monograph applies to 22 both talc containing asbestiform fibers, 23 and asbestos. 24 You understand that,</p>

<p style="text-align: right;">Page 86</p> <p>1 correct?</p> <p>2 A. This goes to the question of</p> <p>3 what I disagree with, because what you're</p> <p>4 saying is that if they study asbestos in</p> <p>5 these heavy occupational exposures, that</p> <p>6 means you should then extend these</p> <p>7 findings to other clinical settings</p> <p>8 outside of that. And -- so yes, I get</p> <p>9 what you're saying and that's exactly</p> <p>10 what I was saying I disagreed with.</p> <p>11 Q. Do you -- I guess I don't</p> <p>12 know what your -- what your opinion is,</p> <p>13 so I'll ask it.</p> <p>14 You understand that this</p> <p>15 monograph from 2012 applies to asbestos</p> <p>16 and asbestiform talc, you understand</p> <p>17 that, right?</p> <p>18 A. Yes.</p> <p>19 Q. Thank you.</p> <p>20 Doctor, in your expert</p> <p>21 report and just a minute ago, you were</p> <p>22 talking about the misdiagnosis of ovarian</p> <p>23 cancer and peritoneal mesothelioma. Do</p> <p>24 you recall that?</p>	<p style="text-align: right;">Page 88</p> <p>1 testifying a bit ago, right?</p> <p>2 A. That's true.</p> <p>3 Q. All right. But it goes on,</p> <p>4 doesn't it, Doctor? It says, "The</p> <p>5 conclusion received" -- "the conclusion</p> <p>6 received additional support from studies</p> <p>7 showing that women and girls with</p> <p>8 environmental, but not occupational</p> <p>9 exposure to asbestos," right?</p> <p>10 A. This is what I was --</p> <p>11 maybe -- maybe it wasn't clear what I was</p> <p>12 referring to when you asked me earlier</p> <p>13 what I disagreed with.</p> <p>14 And I talked about the</p> <p>15 limitations of the IARC monograph. I</p> <p>16 mentioned this issue, that they'll make</p> <p>17 these statements and then they give you a</p> <p>18 couple of papers to go look at; Ferante,</p> <p>19 et al., and Reid, et al.</p> <p>20 When you go back and you</p> <p>21 look at those studies, they actually come</p> <p>22 to the exact opposite conclusion, that</p> <p>23 women in those settings did not have an</p> <p>24 increased risk of ovarian cancer. And</p>
<p style="text-align: right;">Page 87</p> <p>1 A. I said misclassification.</p> <p>2 Q. Okay. And, we'll turn to</p> <p>3 that part of your expert report in a bit.</p> <p>4 But since you brought it up, if you could</p> <p>5 turn to Page 356 of the monograph.</p> <p>6 A. Sand and gravel?</p> <p>7 Q. It's -- did I say three?</p> <p>8 A. You said 356, sand and</p> <p>9 gravel.</p> <p>10 Q. 256. I apologize.</p> <p>11 A. Okay.</p> <p>12 Q. Okay. If you look at the</p> <p>13 right-hand column. We'll -- we'll start</p> <p>14 with the first full paragraph which reads</p> <p>15 the working group -- are we together?</p> <p>16 A. Yes.</p> <p>17 Q. Okay. "The working group</p> <p>18 noted that a causal association between</p> <p>19 exposure to asbestos and cancer of the</p> <p>20 ovary was clearly established based on</p> <p>21 five strongly positive cohort mortality</p> <p>22 studies of women with heavy occupational</p> <p>23 exposure."</p> <p>24 That's what you were</p>	<p style="text-align: right;">Page 89</p> <p>1 yet the IARC authors say that their</p> <p>2 findings were supported. So they have</p> <p>3 five strong studies showing an increased</p> <p>4 risk of ovarian cancer. Two studies</p> <p>5 in -- in environmental settings that show</p> <p>6 no increases of ovarian cancer come to</p> <p>7 the conclusion that that is not a</p> <p>8 discrepancy, it's actually in support of.</p> <p>9 And I am supposed to read</p> <p>10 this and agree with that.</p> <p>11 Q. You disagree with IARC and</p> <p>12 their findings with regard --</p> <p>13 A. No, and if they regard --</p> <p>14 Q. Hold on, Doctor.</p> <p>15 A. Yes. Okay.</p> <p>16 Q. You disagree with IARC and</p> <p>17 their findings with regard to asbestos</p> <p>18 and asbestiform talc and its</p> <p>19 carcinogenicity as it relates to the</p> <p>20 ovary, correct?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: My opinion</p> <p>24 about this is that I restrict my</p>

<p style="text-align: right;">Page 90</p> <p>1 opinions about the carcinogenicity 2 of asbestos with ovarian cancer to 3 the settings where it was shown to 4 increase ovarian cancer. 5 If you ask me about settings 6 where the studies explicitly show 7 it did not increase ovarian 8 cancer, I don't accept that it 9 increases ovarian cancer in those 10 situations. 11 I don't understand how a 12 reasonable person could. If you 13 read a study that says it did not 14 increase risk of ovarian cancer in 15 a situation, why would you then 16 conclude that it does? 17 BY MS. GARBER: 18 Q. Have you done a thorough and 19 comprehensive assessment of the 20 literature as it pertains to asbestos and 21 ovarian cancer? 22 MS. CURRY: Object to the 23 form. 24 THE WITNESS: To be honest,</p>	<p style="text-align: right;">Page 92</p> <p>1 form. 2 THE WITNESS: I believe I 3 have. I'm disagreeing with you. 4 BY MS. GARBER: 5 Q. Because -- 6 A. I'm saying -- 7 Q. Because you -- 8 A. -- because I reviewed 9 IARC -- 10 MS. CURRY: Sorry. You 11 can't talk over one another. 12 Do you want to finish your 13 response? 14 THE WITNESS: My 15 understanding is that IARC, 16 because so many other groups rely 17 on their findings to inform their 18 opinions, that they are tasked 19 with doing a comprehensive review 20 of the literature on the topic. 21 And so yes, I feel like if I 22 reviewed what they reviewed, I've 23 done a comprehensive review as 24 well.</p>
<p style="text-align: right;">Page 91</p> <p>1 I'm hoping that IARC would have 2 done an extensive study of the 3 literature. So my only -- as I've 4 already admitted, I'm not an 5 asbestos specialist, so my 6 understanding of asbestos and 7 ovarian cancer is limited to IARC. 8 And if they've done an 9 extensive review to reach their 10 conclusions, then I would have to 11 say that I have as well, because I 12 reviewed the papers they've 13 reviewed. And I've already 14 repeatedly told you the problems 15 that I have with saying you're 16 supported by studies that find the 17 exact opposite findings of the 18 studies that hold your original 19 opinion. 20 BY MS. GARBER: 21 Q. Is the answer to my question 22 no, I have not conducted a full 23 comprehensive review of the literature? 24 MS. CURRY: Object to the</p>	<p style="text-align: right;">Page 93</p> <p>1 BY MS. GARBER: 2 Q. With regard to the 3 misclassification issue that you 4 testified about, Doctor, if you could 5 look back at Page 256. 6 A. Yes. 7 Q. It indicates, "The working 8 group carefully considered the 9 possibility that cases of peritoneal 10 mesothelioma may have been misdiagnosed 11 as ovarian cancer and that these 12 contributed to the observed excesses. 13 Contravening that possibility is the 14 finding that three of the studies cited 15 here specifically examined the 16 possibility, and there were misdiagnosed 17 cases of peritoneal mesothelioma, and all 18 failed to find sufficient numbers of 19 misclassified cases." 20 Doctor, do you agree with 21 that statement? 22 A. I agree with the statement 23 that they did not find what they 24 considered enough cases of misclassified</p>

<p style="text-align: right;">Page 94</p> <p>1 cases. But I'm aware that they actually 2 did not go back and do a histologic 3 evaluation of every case. 4 What I'm also aware of is 5 that specific cases that do 6 systematically go back and have 7 pathologic confirmation somehow come to a 8 different conclusion than the studies 9 that don't do that. And so I'm still 10 left wondering, if you do a systematic 11 pathology review and classify them, you 12 don't find an increased risk. If you 13 don't do a systematic pathology 14 confirmation, you find an increased risk. 15 I'm like IARC, I'm not 16 convinced that misclassification has been 17 totally ruled out because I can't 18 understand why these two different types 19 of studies are coming -- you see, you're 20 losing consistency then. 21 Q. IARC found otherwise. 22 A. I just admitted that I have 23 a different opinion. 24 Q. So your review as to the</p>	<p style="text-align: right;">Page 96</p> <p>1 A. Yes. 2 Q. And asbestiform talc? 3 A. Yes. 4 Q. Thank you. 5 Do you agree, Doctor, that 6 asbestos and asbestiform talc are Group 1 7 carcinogens under IARC 2012? 8 A. I agree. 9 Q. Doctor, if talcum powder 10 products contain asbestos, talcum powder 11 products contain a Group 1 carcinogen? 12 MS. CURRY: Object to the 13 form. 14 THE WITNESS: Excuse me? 15 BY MS. GARBER: 16 Q. You just testified that 17 asbestos is a Group 1 carcinogen, right? 18 A. Yes. 19 Q. And -- 20 A. According to IARC, yes. 21 Q. Okay. And if, it's a 22 hypothetical, talcum powder products 23 contain asbestos, then those talcum 24 powder products contain a Group 1</p>
<p style="text-align: right;">Page 95</p> <p>1 issue of asbestos and asbestiform talc 2 and carcinogenicity is limited to IARC 3 2012, correct? 4 MS. CURRY: Object to the 5 form. 6 THE WITNESS: Again, I'm 7 trying to -- trying to state this 8 as clearly as possible so we can 9 move on. 10 My opinion of asbestos and 11 its ability to cause cancer of the 12 ovary are restricted to the 13 studies of heavy occupational 14 exposure in which they actually 15 found an increased risk of ovarian 16 cancer. 17 BY MS. GARBER: 18 Q. And your review to come to 19 your opinions is limited to IARC 2012? 20 MS. CURRY: Object to form. 21 THE WITNESS: As far as 22 asbestos? 23 BY MS. GARBER: 24 Q. Yes.</p>	<p style="text-align: right;">Page 97</p> <p>1 carcinogen, right? 2 A. That would be IARC's 3 opinion, yes. 4 Q. Is it your opinion? It's a 5 Group 1 carcinogen. 6 A. You asked, you asked what -- 7 in the beginning whether -- what's my 8 definition of a carcinogen. And I said 9 it's a substance that can cause cancer. 10 So on one hand you're asking 11 if it contains this substance that IARC 12 has deemed a Level 1 carcinogen, would it 13 contain that carcinogen? By definition, 14 yes. You said if I take that 15 supposition. 16 I would just say I'm looking 17 at, and I was asked to review the 18 literature on talc. And you asked me 19 what do I consider talc, and I said 20 Johnson & Johnson and Shower to Shower. 21 Is that a carcinogen? 22 And now that goes back to my 23 definition of carcinogen. Can that 24 powder cause cancer? And my review, as</p>

<p style="text-align: right;">Page 98</p> <p>1 you know you've already asked, would be 2 no. 3 Q. Well, so I'll go back to my 4 question. 5 Assume that talcum powder 6 products contain asbestos, then they 7 contain a Group 1 carcinogen, right? 8 MS. CURRY: Object to form. 9 THE WITNESS: You know, 10 we're sort of tying all these 11 things together. I already 12 explained that I disagreed with 13 IARC's definition of at least its 14 role of -- outside of those heavy 15 occupational exposures, which are 16 the only studies that they cite 17 which shows an increased risk of 18 ovarian cancer. 19 So you're saying would IARC 20 consider that in talc as a 21 carcinogen, the asbestos, and I'm 22 saying yes, they considered -- in 23 your supposition, would 24 asbestiform talc be considered a</p>	<p style="text-align: right;">Page 100</p> <p>1 clarify my opinion, because my 2 opinion is really, I think, 3 clearly what I'm stating. 4 I'm saying that asbestos and 5 its relationship to ovarian cancer 6 has been clearly shown in a few 7 very unlikely situations ever to 8 happen again. And those are those 9 prospective cohort studies. 10 I'm saying that IARC, 11 extending that outside of those 12 situations that they have not 13 studied, that's when I'm going to 14 go to what are people actually 15 using in that bottle. 16 And if that's asbestos in 17 that bottle, I'm closing this 18 book, and I'm opening the talc 19 monograph, because that -- all the 20 studies that they discuss in that 21 talc monograph are these products, 22 the Johnson & Johnson products. 23 I would be going to the 24 case-control studies in my report.</p>
<p style="text-align: right;">Page 99</p> <p>1 Group 1. I would say according to 2 IARC, yes. 3 I'm just clarifying to say 4 that the whole point of me being 5 here is to give an opinion whether 6 that supposition that you just 7 said, if there is asbestos in Baby 8 Powder, Johnson & Johnson's 9 product, is that a carcinogen? 10 And my answer would be no, 11 because I don't see convincing -- 12 and we're going to go through I'm 13 sure all the reasons that I don't 14 believe that. But I don't believe 15 that it proves that it's a 16 carcinogen. 17 BY MS. GARBER: 18 Q. So then, you disagree with 19 IARC that asbestos is not a Group 1 20 carcinogen? 21 MS. CURRY: Object to form. 22 THE WITNESS: No. You're 23 oversimplifying my statement. And 24 I can't believe it's to really</p>	<p style="text-align: right;">Page 101</p> <p>1 I'd be going to the prospective 2 trials in my report. 3 I don't understand why we 4 would use such an indirect 5 comparison, finding something in 6 this book to help us figure out 7 does that product cause cancer 8 when there's been so much research 9 using what's in that bottle that 10 have results. 11 BY MS. GARBER: 12 Q. Doctor, my question was just 13 way more broad than what -- what you're 14 answering. 15 Do you agree with IARC that 16 asbestos is a Group I carcinogen? I 17 didn't mention ovarian cancer. I said do 18 you agree with IARC that asbestos is a 19 Group I carcinogen? 20 MS. CURRY: Object to the 21 form. 22 THE WITNESS: Yes. In 23 certain settings. 24 BY MS. GARBER:</p>

<p style="text-align: right;">Page 102</p> <p>1 Q. And so now if we put a 2 Group I carcinogen in a bottle of talc, 3 then the corollary is that the bottle of 4 talc contains a Group I carcinogen, 5 right? 6 A. That would be true. 7 MS. CURRY: Object to the 8 form. 9 BY MS. GARBER: 10 Q. Thank you. 11 So let's mark your notice of 12 deposition as Exhibit 5. 13 (Document marked for 14 identification as Exhibit 15 Holcomb-5.) 16 BY MS. GARBER: 17 Q. Doctor, we've marked as 18 Exhibit 5 your notice of deposition for 19 today's proceeding. Did you review this 20 before today? 21 A. At some point I did. 22 Q. When did you review it? 23 A. When? 24 Q. Mm-hmm.</p>	<p style="text-align: right;">Page 104</p> <p>1 Q. Your file for this matter is 2 your report? 3 A. Yes. 4 Q. Does it consist of anything 5 else? 6 A. Does my report consist of 7 anything else? 8 Q. No. 9 Is it your testimony, 10 Doctor, that your file in this matter in 11 the MDL consists of your expert report, 12 which is dated February 25, 2019? 13 MS. CURRY: Object to the 14 form. 15 THE WITNESS: Yes. 16 BY MS. GARBER: 17 Q. You don't have any other 18 documents? 19 A. No. 20 Q. And do you have any 21 document -- any scientific literature 22 that consists of your file? 23 MS. CURRY: Object to the 24 form.</p>
<p style="text-align: right;">Page 103</p> <p>1 A. When it was first produced. 2 Q. And did you review the 3 documents -- 4 MS. GARBER: And I 5 understand you've made objections, 6 Ms. Curry. 7 BY MS. GARBER: 8 Q. But did you review the 9 documents that we asked you to produce? 10 A. Yes. 11 Q. And did you endeavor to 12 comply with that and provide those 13 documents? 14 A. Yes. 15 Q. And have you brought with 16 you Item 3, a copy of your complete files 17 as they relate to the work done 18 concerning talcum powder litigation? 19 MS. CURRY: Object to the 20 form. 21 THE WITNESS: Yes. 22 BY MS. GARBER: 23 Q. And where is that file? 24 A. In my report.</p>	<p style="text-align: right;">Page 105</p> <p>1 THE WITNESS: I don't 2 understand your question. 3 BY MS. GARBER: 4 Q. You've reviewed a number of 5 studies that appear on the reference 6 lists attached to your expert report, 7 correct? 8 A. Correct. 9 Q. Where physically are those 10 literature? 11 A. When you say where 12 physically? 13 Q. Mm-hmm. 14 A. The -- I -- I did most of 15 my -- almost all of it electronically. 16 Q. You didn't receive hard 17 copies of any documents? 18 A. The expert reports I 19 received as a hardcopy. 20 Q. What about with regard to 21 published literature. Did you review 22 any -- did you receive any hard copies of 23 those? 24 A. Not for the MDL.</p>

<p style="text-align: right;">Page 106</p> <p>1 Q. You did receive hard copies 2 from the Ingham matter, correct? 3 A. I did. And I quickly asked 4 for electronic copies. 5 Q. And did you make any notes 6 on those 61 studies that you received in 7 connection with Ingham? 8 MS. CURRY: Object to the 9 form. 10 THE WITNESS: No. 11 BY MS. GARBER: 12 Q. With regard to the 13 literature that you reviewed in 14 connection with this matter, did you make 15 any notes electronically on the data? 16 A. No. 17 Q. Do you have the data saved 18 in a certain file in your computer? 19 A. Yes. I imagine it's 20 probably somewhere in my download list, 21 in my download area. 22 Q. Like a DropBox? 23 A. No. I'm saying like if it 24 was sent electronically, when I</p>	<p style="text-align: right;">Page 108</p> <p>1 that Johnson & Johnson provided you that 2 you relied upon in forming your opinions? 3 A. No. 4 Q. Relating to your opinions as 5 set forth in your February 25, 2019, 6 litigation report, have you made any 7 assumptions? 8 A. Please repeat that? 9 Q. Sure. Relating to your 10 opinions in your expert report in this 11 matter, have you made any assumptions? 12 MS. CURRY: Object to the 13 form. 14 THE WITNESS: No. 15 BY MS. GARBER: 16 Q. Do you assume, in coming to 17 your causation opinions regarding talcum 18 powder products, that they are free of 19 asbestos? 20 A. I don't have an opinion on 21 it. 22 Q. Do you have an opinion as to 23 whether Johnson & Johnson products, 24 talcum powder products, are free of</p>
<p style="text-align: right;">Page 107</p> <p>1 downloaded it, I would imagine it must be 2 in the download part of my computer. 3 Q. Have you -- I don't 4 understand when you say download of a 5 computer, where that would be? 6 A. If you get a ZIP file, and 7 you open it, it's actually downloading 8 stuff to your computer. 9 Q. I understand. Okay. 10 Have you produced all 11 documents that relate to your 12 compensation for expert work in this 13 matter? 14 A. Yes. 15 MS. CURRY: Subject to the 16 objections. 17 BY MS. GARBER: 18 Q. And have you produced all 19 references that identify facts, or data 20 that Johnson & Johnson lawyers provided 21 you and you considered in formulating 22 your opinions? 23 A. Yes. 24 Q. Are there any assumptions</p>	<p style="text-align: right;">Page 109</p> <p>1 fibrous talc? 2 A. No, I don't have an opinion. 3 Q. Do you have an opinion if 4 Johnson & Johnson talcum powder products 5 contain heavy metals like nickel, 6 chromium, cobalt and the like? 7 MS. CURRY: Object to the 8 form. 9 THE WITNESS: I don't have 10 an opinion. 11 BY MS. GARBER: 12 Q. Do you have an opinion 13 whether Johnson & Johnson talcum powder 14 products contain carcinogenic fragrances? 15 MS. CURRY: Object to the 16 form. 17 THE WITNESS: No, I don't 18 have an opinion. 19 BY MS. GARBER: 20 Q. In the Ingham matter, you 21 had no opinion whether Johnson & 22 Johnson's talcum powder products 23 contained asbestos at any point, right? 24 A. I didn't have an opinion,</p>

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<p>1 no.</p> <p>2 Q. Is that still the case?</p> <p>3 A. Still the case.</p> <p>4 (Document marked for</p> <p>5 identification as Exhibit</p> <p>6 Holcomb-6.)</p> <p>7 BY MS. GARBER:</p> <p>8 Q. I'll mark as Exhibit 6 the</p> <p>9 production that was made, I think, the</p> <p>10 25th.</p> <p>11 Doctor, this is a single</p> <p>12 document that is printed on both sides,</p> <p>13 and we'll start with the side that is</p> <p>14 titled "Expert Report of Kevin Holcomb</p> <p>15 For General Or Causation Daubert Hearing,</p> <p>16 Supplemental Materials Received and</p> <p>17 Reviewed By Dr. Kevin Holcomb."</p> <p>18 Doctor, is this the</p> <p>19 supplemental materials that you reviewed</p> <p>20 after you issued your expert report?</p> <p>21 A. Yes.</p> <p>22 Q. Do you need to add any</p> <p>23 further documents to this list to make it</p> <p>24 accurate?</p>	<p>1 Q. And it lists 95 hours of</p> <p>2 expert work?</p> <p>3 A. Yes, it does.</p> <p>4 Q. And at a rate of \$850?</p> <p>5 A. Yes.</p> <p>6 Q. And so you've invoiced</p> <p>7 Johnson & Johnson for \$80,750, right?</p> <p>8 A. That's correct.</p> <p>9 Q. Have you been paid?</p> <p>10 A. No.</p> <p>11 Q. And are there any other</p> <p>12 hours that you intend to invoice Johnson</p> <p>13 & Johnson for?</p> <p>14 A. Yes.</p> <p>15 MS. CURRY: Object to the</p> <p>16 form.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. And how many hours would</p> <p>19 that entail?</p> <p>20 A. Depends on how long we go</p> <p>21 today and the few hours yesterday.</p> <p>22 Q. How many hours yesterday?</p> <p>23 A. Maybe about four.</p> <p>24 Q. And do you intend to bill</p>
Page 111	Page 113
<p>1 A. No.</p> <p>2 Q. And when did you review the</p> <p>3 scientific studies that are listed there?</p> <p>4 A. When you say scientific?</p> <p>5 Q. Aside from the depositions</p> <p>6 and expert reports, when did you review</p> <p>7 each of those papers that are listed</p> <p>8 there, specifically Items 1, 2, 8, 9 and</p> <p>9 10?</p> <p>10 A. That came after reading</p> <p>11 Dr. Saenz's deposition. So I don't know.</p> <p>12 Maybe about a week, week and a half ago.</p> <p>13 Q. Okay. And then if we turn</p> <p>14 the document over, does this reflect an</p> <p>15 invoice issued by you on March 25th,</p> <p>16 2019, to Johnson & Johnson for expert</p> <p>17 services?</p> <p>18 A. Yes, it does.</p> <p>19 Q. And it indicates as to the</p> <p>20 description for literature review,</p> <p>21 drafting of expert report, and</p> <p>22 preparation for deposition; is that</p> <p>23 correct?</p> <p>24 A. That's true.</p>	<p>1 Johnson & Johnson for any work in</p> <p>2 preparation of today's deposition before</p> <p>3 the deposition started today?</p> <p>4 A. No.</p> <p>5 Q. Do you have a different rate</p> <p>6 for your deposition --</p> <p>7 A. No.</p> <p>8 Q. -- as opposed to other work</p> <p>9 that you do?</p> <p>10 A. No.</p> <p>11 Q. How much money were you paid</p> <p>12 with regard to your work in the Ingham</p> <p>13 case?</p> <p>14 A. In total, it was \$100,300.</p> <p>15 Q. And so in connection with</p> <p>16 your work today for Johnson & Johnson in</p> <p>17 connection with talcum powder products,</p> <p>18 ovarian cancer litigation, you have thus</p> <p>19 at least invoiced and/or been paid for</p> <p>20 roughly 183 -- almost \$184,000; is that</p> <p>21 fair?</p> <p>22 MS. CURRY: Object to the</p> <p>23 form.</p> <p>24 THE WITNESS: No.</p>

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<p>1 BY MS. GARBER:</p> <p>2 Q. How much?</p> <p>3 A. You said invoiced and been</p> <p>4 paid?</p> <p>5 Q. Yeah, so, so you have to</p> <p>6 date earned \$103,000, correct?</p> <p>7 A. Correct.</p> <p>8 Q. And then you've invoiced</p> <p>9 Johnson & Johnson for \$80,750, correct?</p> <p>10 A. Correct.</p> <p>11 Q. Plus the hours that you just</p> <p>12 mentioned?</p> <p>13 A. Correct.</p> <p>14 Q. Is that the totality of the</p> <p>15 compensation that you have received, or</p> <p>16 will receive up through today's</p> <p>17 deposition?</p> <p>18 A. That is.</p> <p>19 Q. Thank you.</p> <p>20 (Document marked for</p> <p>21 identification as Exhibit</p> <p>22 Holcomb-7.)</p> <p>23 BY MS. GARBER:</p> <p>24 Q. I'm going to mark your</p>	<p>1 with some degree of how strong I thought</p> <p>2 the studies were, how subject they might</p> <p>3 be to spurious results.</p> <p>4 I looked to see if there was</p> <p>5 consistency. I looked to see if there</p> <p>6 was a biologic plausibility that involved</p> <p>7 mainly looking at migration issues. And</p> <p>8 then in a totality came up with my</p> <p>9 opinion about the ability of talc to</p> <p>10 cause ovarian cancer.</p> <p>11 Q. If we turn to your</p> <p>12 references which appear beginning at Page</p> <p>13 25 through 33. And in addition the</p> <p>14 supplemental references, there are more</p> <p>15 than the 61 references that you had in</p> <p>16 connection with the Ingham trial,</p> <p>17 correct?</p> <p>18 A. Yes.</p> <p>19 Q. Did you request any other</p> <p>20 documents or literature from counsel?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: No.</p> <p>24 BY MS. GARBER:</p>
Page 115	Page 117
<p>1 expert report in the MDL as Exhibit 7.</p> <p>2 You signed this document on</p> <p>3 February 25, 2019, correct?</p> <p>4 A. Correct.</p> <p>5 Q. And this is your litigation</p> <p>6 report attendant to the MDL talcum powder</p> <p>7 products litigation, correct?</p> <p>8 A. Correct.</p> <p>9 Q. Have you endeavored to have</p> <p>10 this litigation report published in any</p> <p>11 scientific journal?</p> <p>12 A. No.</p> <p>13 Q. Can you describe the process</p> <p>14 you used in developing the opinions</p> <p>15 contained in this report?</p> <p>16 A. Yes. I started, again, by</p> <p>17 reviewing epidemiologic data. I reviewed</p> <p>18 both case-control and cohort studies. I</p> <p>19 looked at -- well, I guess my methodology</p> <p>20 would really be following Bradford Hill's</p> <p>21 methodology, because in reviewing that</p> <p>22 data I looked at the strengths of</p> <p>23 associations.</p> <p>24 I tried to rate the studies</p>	<p>1 Q. And is it accurate that all</p> <p>2 of the documents that are listed on your</p> <p>3 reference lists, which include what's</p> <p>4 attached to your report and the</p> <p>5 supplemental, were all provided to you by</p> <p>6 counsel?</p> <p>7 MS. CURRY: Object to the</p> <p>8 form.</p> <p>9 THE WITNESS: No. Some of</p> <p>10 these I came up with on my own. I</p> <p>11 don't remember exactly which ones.</p> <p>12 But it's not all provided by</p> <p>13 counsel.</p> <p>14 BY MS. GARBER:</p> <p>15 Q. Is there anything you</p> <p>16 reviewed but did not rely upon in forming</p> <p>17 your opinions?</p> <p>18 A. No.</p> <p>19 Q. Are there any materials that</p> <p>20 you relied upon in forming your opinions</p> <p>21 that are not listed in your reference</p> <p>22 lists that we've reviewed?</p> <p>23 MS. CURRY: Object to the</p> <p>24 form.</p>

<p style="text-align: right;">Page 118</p> <p>1 THE WITNESS: Other than 2 what I've already told you that I 3 came across in expert reports. 4 BY MS. GARBER: 5 Q. And in drafting your expert 6 report, you have not made any notes; is 7 that correct? 8 A. If you mean written, no. I 9 would -- as the manuscript was being 10 produced, I would make points. But it 11 all became incorporated in the end into a 12 final product. 13 Q. What was the process by 14 which you developed your report? Did you 15 read a study and then make some notes or 16 mental notes, or write? Tell me the 17 process by which you -- 18 MS. CURRY: Object to the 19 form. 20 THE WITNESS: I typically 21 worked with two monitors. And one 22 I'm writing the manuscript. The 23 other one, I'm bringing up papers. 24 BY MS. GARBER:</p>	<p style="text-align: right;">Page 120</p> <p>1 Q. What were your -- what was 2 your search engine? 3 A. PubMed as you mentioned. 4 Sometimes Google. 5 Q. And what were your search 6 terms? 7 A. Ovarian cancer, talc, 8 perineal talc and ovarian cancer, body 9 powder and ovarian cancer. It depended 10 what I was looking for. 11 There was some points I'm 12 making in my expert report where I'm 13 using analogies. And so I was looking at 14 HPV and cervical cancer or herpes simplex 15 virus and cervical cancer. And so it -- 16 it depended on what I was -- what I was 17 looking at at the moment. 18 Q. What did you do, Google 19 searches? 20 A. I'm guilty of using Google 21 from now and then to start a search. 22 It's sometimes faster. It will bring up 23 PubMed articles. 24 Q. Did -- have you read, since</p>
<p style="text-align: right;">Page 119</p> <p>1 Q. Okay. So there's no notes 2 that you made before you started to sit 3 down and write your expert report; is 4 that correct? 5 MS. CURRY: Object to the 6 form. 7 THE WITNESS: No. 8 BY MS. GARBER: 9 Q. It's not correct? 10 A. There are no notes. 11 Q. There are -- thank you. 12 Did you read every word of 13 the documents listed in your reference 14 list? 15 A. Yes. 16 Q. Did you -- when you said you 17 obtained some of the references, is that 18 limited to reviewing exhibits from expert 19 reports or depositions? 20 A. No. 21 Q. Did you conduct any 22 searches, say, Medline searches or PubMed 23 searches? 24 A. I did.</p>	<p style="text-align: right;">Page 121</p> <p>1 the production of your supplemental 2 reference list, have you read any other 3 expert reports or depositions or other 4 studies? 5 A. Since? 6 Q. Since the production of your 7 supplemental expert report which was 8 marked as Exhibit 6. 9 MS. CURRY: Object to the 10 form. You mean supplemental 11 materials received list? 12 MS. GARBER: Yes. 13 THE WITNESS: Only -- let's 14 see. Yes, there's one other -- 15 one other paper, and that was a 16 migration paper. But I believe it 17 just came out. It was -- 18 BY MS. GARBER: 19 Q. What's the title? 20 A. I don't remember. 21 Q. Or the author? 22 A. It was -- I don't know who 23 is the first author. I know -- 24 Q. Can you give me any authors?</p>

<p style="text-align: right;">Page 122</p> <p>1 A. Cramer was -- was involved. 2 I don't remember the first author though. 3 Q. What was the nature of that 4 paper? 5 A. It was -- 6 MS. CURRY: Object to the 7 form. 8 THE WITNESS: It was a paper 9 looking at an attempt to try to 10 differentiate contamination from 11 actual migration of talc 12 particles. 13 BY MS. GARBER: 14 Q. What did you glean from that 15 paper, Doctor? 16 MS. CURRY: Object to the 17 form. 18 THE WITNESS: The biggest 19 thing that I gleaned was that 20 contamination is -- it's probably 21 even more widespread than I 22 realized. And I appreciated the 23 effort to try to distinguish 24 between the two, but I wasn't</p>	<p style="text-align: right;">Page 124</p> <p>1 expert reports or depositions after the 2 supplemental reference list? 3 A. No. 4 Q. And it is accurate that 5 prior to signing your expert report on 6 February 25, 2019, you had not read the 7 recent Saed 2019 paper with regard to a 8 molecular basis supporting the 9 association of talcum powder use with 10 increased risk of ovarian cancer, right? 11 MS. CURRY: Object to the 12 form. 13 THE WITNESS: I'm sorry, can 14 you repeat the question again? 15 Prior to -- 16 BY MS. GARBER: 17 Q. Sure. 18 Prior to signing your expert 19 report on February 25, 2019, you had not 20 read Dr. Saed's 2019 publication, 21 correct? 22 A. That's true. 23 MS. CURRY: Same objection. 24 Sorry.</p>
<p style="text-align: right;">Page 123</p> <p>1 convinced that you can 2 necessarily. 3 BY MS. GARBER: 4 Q. Did the authors there 5 attempt to distinguish surface 6 contamination from talc that was deeply 7 embedded in the tissue? 8 A. Well, they were only looking 9 at lymph nodes from my memory. So they 10 were trying to distinguish between 11 particles on the surface and particles 12 that are in, deeper inside the lymph node 13 itself, yes. 14 Q. Does that paper provide a 15 basis for any of your expert opinions 16 today? 17 A. No. 18 Q. You did not rely upon -- you 19 do not rely upon the Cramer -- we'll call 20 it Cramer contamination paper -- for 21 purposes of your expert opinions; is that 22 fair? 23 A. That's fair. 24 Q. Did you read any other</p>	<p style="text-align: right;">Page 125</p> <p>1 BY MS. GARBER: 2 Q. Prior to signing your expert 3 report on February 25, 2019, likewise you 4 had not read Dr. Saed's abstract with 5 regard to talc and ROS induction, 6 correct? 7 A. That's true. 8 Q. You indicate at Page 20 -- 9 MS. CURRY: Do you need a 10 break? 11 THE WITNESS: Well, I wasn't 12 sure if I -- it looks like we're 13 going to be close to lunch so... 14 We'll be planning on 15 breaking around 12 or -- 16 MS. CURRY: Sorry. I 17 thought he had a message from the 18 hospital, so I wanted to make sure 19 if he needs to take a break. 20 We've been going over an hour, 21 Susan, so whenever is a good time 22 for you. 23 MS. GARBER: You want to 24 take a break? Whenever you</p>

<p style="text-align: right;">Page 126</p> <p>1 guys --</p> <p>2 THE WITNESS: I'm fine for a</p> <p>3 break.</p> <p>4 MS. GARBER: You want to</p> <p>5 take a break?</p> <p>6 THE WITNESS: Yeah, I'd</p> <p>7 appreciate it.</p> <p>8 MS. GARBER: Okay.</p> <p>9 THE VIDEOGRAPHER: Please</p> <p>10 remove your microphones. The time</p> <p>11 is 11:28 a.m. Going off the</p> <p>12 record.</p> <p>13 (Short break.)</p> <p>14 THE VIDEOGRAPHER: Okay. We</p> <p>15 are back on the record. The time</p> <p>16 is 11:42 a.m.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. Doctor, you state at Page 22</p> <p>19 of your report that plaintiffs' expert</p> <p>20 gynecologic oncologist conducted a</p> <p>21 selective review of the study on biologic</p> <p>22 mechanism.</p> <p>23 What studies do you</p> <p>24 contend --</p>	<p style="text-align: right;">Page 128</p> <p>1 they do acknowledge that, but they</p> <p>2 don't -- they don't describe it.</p> <p>3 They just say considered limited</p> <p>4 evidence to the contrary and find</p> <p>5 it non-persuasive.</p> <p>6 My review of the literature</p> <p>7 on this topic, I was looking for</p> <p>8 some studies showing that you</p> <p>9 could dust the human vulva with</p> <p>10 talc and show that those particles</p> <p>11 can make it to the ovary, and I</p> <p>12 couldn't find a single study in</p> <p>13 that situation.</p> <p>14 You could place particles in</p> <p>15 the vagina. You can give a</p> <p>16 patient oxytocin. You can do</p> <p>17 some -- you know, different --</p> <p>18 different than the majority of the</p> <p>19 use of these products.</p> <p>20 And so I -- I came to the</p> <p>21 conclusion that their -- their</p> <p>22 approach was conclusion driven,</p> <p>23 just because it seemed to me, if</p> <p>24 you've never seen a study that</p>
<p style="text-align: right;">Page 127</p> <p>1 A. Could you -- could you</p> <p>2 point -- I'm not sure where you're</p> <p>3 reading from.</p> <p>4 Q. From Page 22 of your expert</p> <p>5 report.</p> <p>6 A. Right, where -- I'm just</p> <p>7 looking where on the page it says this.</p> <p>8 Q. At the first full paragraph.</p> <p>9 MS. CURRY: I'm not seeing</p> <p>10 it there either.</p> <p>11 THE WITNESS: I see where</p> <p>12 you're saying.</p> <p>13 You're saying, "Such</p> <p>14 selective review of studies is</p> <p>15 clearly conclusion driven."</p> <p>16 Q. Yeah, okay. So what -- what</p> <p>17 studies do you believe were omitted from</p> <p>18 the expert -- from the plaintiffs'</p> <p>19 experts?</p> <p>20 MS. CURRY: Object to the</p> <p>21 form.</p> <p>22 THE WITNESS: There's animal</p> <p>23 studies showing no ascension of --</p> <p>24 of particles and -- and they --</p>	<p style="text-align: right;">Page 129</p> <p>1 shows it's possible, and then you</p> <p>2 just say well, the -- the studies</p> <p>3 that I did say that it doesn't</p> <p>4 happen in an animal model, I</p> <p>5 don't -- I'm not persuaded by</p> <p>6 that.</p> <p>7 BY MS. GARBER:</p> <p>8 Q. What animal studies did you</p> <p>9 review with regard to migration?</p> <p>10 A. Yeah, I'd have to look back</p> <p>11 and see was -- whether it was the -- the</p> <p>12 rat model or the pig model. But there</p> <p>13 were definitely animal model studies.</p> <p>14 Let me just show you. It's</p> <p>15 in the -- in the talc monograph, if you</p> <p>16 want me to, I can go back through and --</p> <p>17 and find the citations of --</p> <p>18 Q. That's okay, Doctor.</p> <p>19 I want to know what animal</p> <p>20 studies you think plaintiffs' experts</p> <p>21 should have looked at in connection with</p> <p>22 migration.</p> <p>23 A. Well, it's exactly my point.</p> <p>24 What I'm saying is the study they should</p>

<p style="text-align: right;">Page 130</p> <p>1 look at would be the study where someone 2 dusted the human perineum with talc and 3 showed that it was able to reach the 4 ovary, and that doesn't exist. So that 5 would be the best thing to look at. 6 The studies that I mentioned 7 to you, which I can go back to the talc 8 monograph and find, I don't remember if 9 it was Sprague rats or if it was actually 10 pigs or guinea pigs. There was a couple 11 of animal models where they were not able 12 to show migration from the vagina, not -- 13 much less the perineum. 14 Q. It's your testimony that 15 plaintiffs' experts didn't look at a 16 human study that dusted the perineum with 17 talc and it was shown to migrate to the 18 ovaries, and you're critical of that even 19 though such a study does not exist? 20 MS. CURRY: Object to the 21 form. 22 THE WITNESS: You know, I 23 guess what you can be critical of, 24 and I'd have to admit to that is,</p>	<p style="text-align: right;">Page 132</p> <p>1 THE WITNESS: I'm not sure 2 what you mean by comprehensive. I 3 will tell you that the studies 4 that I do cite, for example a 5 study like Heller, where there's 6 no correlation between the 7 presence of talc in someone's 8 ovaries and the reported use of 9 talc, which I'm sure the 10 plaintiffs' experts have seen, 11 should give them reason to pause 12 if they've never been able to show 13 it in a human model that it can 14 happen. 15 And then you see studies 16 like that that say there's no 17 correlation between reported 18 history and the presence of talc 19 in the ovaries, that it should 20 make you -- it should make you 21 wonder. 22 And I wouldn't be so 23 dismissive of the studies that are 24 to the contrary. I mean, they're</p>
<p style="text-align: right;">Page 131</p> <p>1 I'm saying such selective 2 review -- and I guess that's not 3 what's being selective here. 4 What's being selective is what you 5 consider persuasive or not. 6 It's not the review. It's 7 the absence of such a study. And 8 then not finding the studies on 9 animal models that don't show 10 ascension as not being persuasive. 11 BY MS. GARBER: 12 Q. Doctor, I reviewed your 13 reference list, and I can find about 14 three studies with regard to the issue of 15 migration. And my question to you is, 16 did you do a comprehensive review of the 17 literature with regard to the ability of 18 talc to migrate from the genitals to the 19 perineum -- 20 MS. CURRY: Objection. 21 BY MS. GARBER: 22 Q. -- or to the ovaries? 23 MS. CURRY: Object to the 24 form.</p>	<p style="text-align: right;">Page 133</p> <p>1 mentioning, "Reviewed the small 2 body of literature suggesting 3 migration of particles does not 4 occur." So they're admitting that 5 there is a body of literature that 6 shows that it doesn't occur. 7 BY MS. GARBER: 8 Q. Doctor -- 9 A. You can go -- 10 Q. Doctor, if you can -- 11 MS. CURRY: Are you finished 12 with your response? 13 THE WITNESS: Yeah. 14 BY MS. GARBER: 15 Q. Can you turn to Page -- 16 A. Can I finish my answer? 17 So -- 18 Q. You can finish. 19 A. Thank you. 20 So the statement that says, 21 "I've reviewed the small body of 22 literature suggesting that migration of 23 particles does not occur," they're 24 describing that body of literature as</p>

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<p>1 small. And I'm saying that there is no 2 body of literature showing that perineal 3 dusting of talc gets to the ovaries. 4 So you're comparing small to 5 none, but you find the small 6 non-persuasive. 7 Q. Doctor, if you can turn to 8 Page 16 of your expert report. There is 9 a section on Page 16 titled "Migration of 10 Talc Particles," correct? 11 A. Yes. 12 Q. And you mention the Wehner 13 paper, correct? 14 A. Yes. 15 Q. And do you know what -- was 16 that an animal study or human study? 17 A. That was animals. 18 Q. All right. And then you 19 mentioned the Heller study. Was that a 20 talc migration study? In other words, 21 was talc placed at the genitals and 22 looked to see if it travels? 23 A. No. 24 Q. Okay. And then you also</p>	<p>1 you're going to develop a model to say -- 2 Q. Doctor, sorry, I'm just 3 going to cut you off. 4 A. Sure. 5 Q. My question was did you -- 6 it was just a really simple question. 7 Did you look at any other human studies. 8 And the answer was yes? 9 A. Yes. 10 Q. And then you mentioned one 11 study; is that right? Were there any 12 other studies? 13 MS. CURRY: Object to the 14 form. 15 THE WITNESS: I would have 16 to go back and remind myself of 17 how many, but it was more than 18 one. 19 BY MS. GARBER: 20 Q. Do you have any other 21 criticisms of plaintiffs' gynecologic 22 oncologists and the claim that they 23 selectively reviewed studies? Any other 24 criticisms as to the body of literature?</p>
Page 135	Page 137
<p>1 mentioned the Cramer study, right, the 2 2007 study? 3 A. Yes. 4 2007, you said? 5 Q. Yes. 6 A. Oh, yes, yes. 7 Q. And then if we turn the page 8 over, you also mention the Gertig study; 9 is that right? 10 A. Yes. 11 Q. And then you mention the 12 Terry study? 13 A. Right. 14 Q. Doctor, did you look at any 15 of the human studies where particulate 16 was placed at the genitals or in the 17 genitals and the ability to migrate? 18 A. What particular particulate 19 are you talking about? 20 Q. Any particulate. 21 A. Yes. And I saw in expert -- 22 for example, in Dr. Birrer's report, I 23 believe he discusses a study of carbon. 24 But I think it's really important if</p>	<p>1 A. I do. 2 MS. CURRY: Object to the 3 form. 4 THE WITNESS: I do. I 5 looked at the literature in 6 totality. So if you just restrict 7 to the epidemiologic data, I 8 looked at the case-control 9 studies. I spent a fair amount of 10 time going through those, looking 11 for consistency and things like 12 that. 13 And then I looked at the 14 cohort studies, which as you see 15 in my report I explain why they 16 may -- they are generally 17 considered to be less prone to 18 bias. 19 And then I read 20 Dr. Clarke-Pearson's report where 21 he almost -- I don't even think he 22 mentioned the cohort studies, 23 which to me was an important thing 24 that you'd have to explain away if</p>

<p style="text-align: right;">Page 138</p> <p>1 you really believe that talc 2 causes ovarian cancer. 3 I did -- as I mention, I 4 think they take as a given that 5 talc can migrate. And they're not 6 alone in this. I don't -- I don't 7 think that they're alone in doing 8 that. I read a number of papers 9 that in the introduction will make 10 statements like, "We all know talc 11 can get to the ovaries," and then 12 offer no citation for it. 13 And so I take issue with 14 that as well. 15 BY MS. GARBER: 16 Q. Doctor, I didn't ask you for 17 a full list of your opinions. 18 A. I thought you did. 19 Q. I asked you -- 20 A. You asked me what areas do I 21 disagree with them. 22 Q. Okay. And you mentioned -- 23 MS. CURRY: Please let him 24 finish his response. You've cut</p>	<p style="text-align: right;">Page 140</p> <p>1 THE WITNESS: That's 2 correct. 3 BY MS. GARBER: 4 Q. And those papers relied on 5 plaintiffs' experts in support of their 6 biologically plausible mechanism of 7 carcinogenicity, true? 8 A. Yes, that's true. 9 Q. And in Page 23 of your 10 report you state, "I understand that 11 there are a number of irregularities in 12 Dr. Saed's work and his lab notes." 13 What is your source of that 14 statement? 15 A. Dr. Birrer's expert report. 16 Q. When did you read 17 Dr. Birrer's expert report? 18 A. I'm trying to think. 19 Probably about maybe two weeks ago. 20 Can you tell me what you're 21 referring to though? 22 Your -- your statement. You 23 said you -- I made a -- a referral to 24 something about Dr. Saed, but you didn't</p>
<p style="text-align: right;">Page 139</p> <p>1 him off twice now. 2 MS. GARBER: That's because 3 he's talking in very large 4 paragraphs, and we're never going 5 to get anywhere if I don't. 6 MS. CURRY: If you ask these 7 broad, open-ended questions, he's 8 entitled to respond to it. 9 MS. GARBER: All right. 10 I'll ask a different question. 11 BY MS. GARBER: 12 Q. Doctor, did you review the 13 Buz'Zard 2007, Shukla 2009 papers? 14 A. Only with regard to the 15 expert reports. 16 Q. They're not on your 17 reference list, are they? 18 A. No. 19 Q. And you did not review the 20 Saed 2019 prior to signing your expert 21 report. We've already established that, 22 right? 23 MS. CURRY: Object to the 24 form.</p>	<p style="text-align: right;">Page 141</p> <p>1 tell me where to find it. 2 Q. I just asked you generally, 3 Doctor. 4 You -- you made mention 5 that -- that his work and lab notes -- 6 A. I'm just asking where you're 7 reading from, if you can -- 8 Q. At Page 23, Doctor. 9 A. 23. Thank you. 10 Q. So what's your source of 11 that statement? 12 A. Hold on one second. 13 Q. If you don't know, we'll 14 move on. 15 MS. CURRY: Just give him a 16 second to look at where you're 17 reading from. 18 THE WITNESS: I just want to 19 get to -- yeah. 20 BY MS. GARBER: 21 Q. It's at the top of 23. 22 A. I don't remember exactly. 23 Q. All right. Did you -- I -- 24 I noted that his lab notebooks were not</p>

<p style="text-align: right;">Page 142</p> <p>1 on his reference list. You didn't look 2 at those, did you? 3 MS. CURRY: Object to the 4 form. 5 THE WITNESS: No. 6 BY MS. GARBER: 7 Q. You haven't looked at all of 8 his work relating to talc and mechanism 9 of carcinogenicity, right? 10 A. No. 11 Q. And with regard to your 12 reference list, you haven't reviewed 13 Health Canada's draft screening 14 assessment with regard to talc dated 15 December of 2018, correct? 16 MS. CURRY: Object to the 17 form. 18 THE WITNESS: I did. 19 BY MS. GARBER: 20 Q. Sorry? 21 A. I did. 22 Q. You did review it? 23 A. It's one of Dr. Saenz's 24 exhibits.</p>	<p style="text-align: right;">Page 144</p> <p>1 Q. Are you planning to provide 2 any comment? 3 A. What I reviewed was a draft. 4 So I'm not sure what Health Canada is 5 going to finally decide to publish. So 6 no, I didn't -- I didn't -- 7 Q. Do -- 8 MS. GARBER: Motion to 9 strike as nonresponsive. 10 BY MS. GARBER: 11 Q. Doctor, I asked you, are you 12 planning to provide any comment to Health 13 Canada? 14 A. I'm saying perhaps I would 15 if I saw a final product that I thought 16 was really egregious, but I've only 17 reviewed a draft and so I -- I can't say 18 whether I would or not. 19 Q. Doctor, do you understand 20 that Health Canada has asked for public 21 comment? 22 A. I didn't -- no, I wasn't 23 aware of the process. 24 Q. Okay. Have you ever been</p>
<p style="text-align: right;">Page 143</p> <p>1 Q. Okay. And it's not listed 2 on your reference list, correct? 3 MS. CURRY: Object to the 4 form. 5 THE WITNESS: I'd have to 6 look through the reference list -- 7 no, it was something that I 8 reviewed as part of Dr. Saenz's 9 exhibits. 10 BY MS. GARBER: 11 Q. So you have reviewed Health 12 Canada's December 2018 draft report? 13 A. It's part of Dr. -- it's 14 part of Dr. Saenz's exhibits and I have 15 reviewed it. 16 Q. When did you review that? 17 A. Maybe about a week ago. 18 Q. Okay. Have you read any 19 comment letters or reports issued in 20 response to the Health Canada DSAR? 21 A. No. 22 Q. Have you been asked to 23 provide any comment to Health Canada? 24 A. No.</p>	<p style="text-align: right;">Page 145</p> <p>1 asked to testify at any United States or 2 state government proceedings with regard 3 to talcum powder products? 4 A. No. 5 Q. And you are not conducting 6 any research, experimental research in 7 any capacity concerning talcum powder 8 products and ovarian cancer, right? 9 A. No. 10 Q. Are you planning to? 11 A. No. 12 Q. Have you ever applied for a 13 grant or monies to conduct a research on 14 talcum powder products and ovarian 15 cancer? 16 A. No. 17 Q. Have you read the Taher 2018 18 meta-analysis? 19 A. I have. 20 Q. Yes? 21 A. Yes. 22 Q. When did you read that? 23 A. Same day I read the Health 24 Canada assessment.</p>

<p style="text-align: right;">Page 146</p> <p>1 Q. And that was not on any of 2 your -- the Taher 2018 meta-analysis was 3 not listed on any of your reference 4 lists, correct? 5 A. It is -- 6 MS. CURRY: Object to the 7 form. 8 THE WITNESS: It's also part 9 of the exhibits for Dr. Saenz. 10 BY MS. GARBER: 11 Q. Could you go back to 12 Exhibit 6, please. 13 Doctor, you understand that 14 your reference lists provide me an 15 opportunity to know what literature you 16 have reviewed and relied on attendant to 17 your expert opinions, correct? 18 A. That's correct. 19 Q. And if you look at Item 5 of 20 Exhibit 6 which is your supplemental 21 materials? 22 A. Yes. 23 Q. Could you read Number 5 for 24 me, please?</p>	<p style="text-align: right;">Page 148</p> <p>1 A. No, I have not. 2 Q. And your expert report 3 contains Table 1, correct? 4 A. Yes. 5 Q. And what is the nature of 6 Table 1? 7 A. Table 1 -- 8 MS. CURRY: Table 1 in the 9 copy that you marked is actually 10 cut off. 11 Do you have a full version 12 of it? 13 MS. GARBER: I do. It's -- 14 it's buried. But I'm going to 15 mark it, so... 16 BY MS. GARBER: 17 Q. Are you able to tell me what 18 Table 1 contains? 19 A. Yes. 20 Q. And what it is? 21 A. Table 1 is a list of 22 case-control studies that I reviewed in 23 regard to this matter. 24 Q. Why did you create this</p>
<p style="text-align: right;">Page 147</p> <p>1 A. It says, "Expert report of 2 Cheryl Saenz, M.D., February 25, 2019." 3 Q. It doesn't say exhibits, 4 does it? 5 MS. CURRY: Object to the 6 form. Number 3 discusses the 7 deposition. 8 BY MS. GARBER: 9 Q. Is that what it says, 10 Doctor? Does it say exhibits there, sir? 11 MS. CURRY: Object to the 12 form. 13 THE WITNESS: It clearly 14 doesn't say exhibits. Number 3 is 15 where it says exhibits, so I'm not 16 sure why you're having me read all 17 of 5, when it clearly says on 18 Number 3, "Deposition of Cheryl 19 Saenz, M.D., and exhibits, 20 March 13, 2019." 21 BY MS. GARBER: 22 Q. Okay. Doctor, have you 23 spoken with any of the Taher study 24 authors?</p>	<p style="text-align: right;">Page 149</p> <p>1 list? 2 A. One, I wanted to show that I 3 performed a comprehensive review. But I 4 guess largely what I saw mentions over 5 and over again by plaintiffs' experts and 6 sometimes in other papers, the statement 7 that the epidemiologic data consistently 8 shows an increased risk of -- of ovarian 9 cancer with talc exposure. And I think 10 most people already know that that's only 11 with case-control studies and none of the 12 cohort studies if you include Gates and 13 then update to Gertig. 14 So then I wanted to look at 15 the case-control studies. And to see 16 could somebody use that term 17 consistently, maybe loosely, and what I 18 consider consistent and they consider 19 consistent different. 20 And so I looked through this 21 list of case-control studies. I looked 22 at those that showed a positive 23 association and had a 95 percent 24 confidence interval that would suggest it</p>

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<p>1 was statistically significant. And I 2 wanted to see what percentage of them, 3 that were not duplicates of the same 4 dataset actually showed this association. 5 And so my -- my review of 6 this list of case-control studies was 7 that -- I don't -- it came out to be 8 about 50/50 with a positive association. 9 Because I wanted to find out, would -- 10 would anybody call, you know, a 50/50 11 chance consistent. 12 Q. So you created Table 1 to 13 show or to support your claim that the 14 case-control studies were inconsistent 15 based on statistical significance. 16 Is that fair, Doctor? 17 MS. CURRY: Object to the 18 form. 19 THE WITNESS: That's fair. 20 BY MS. GARBER: 21 Q. Okay. Exhibit A at the back 22 of your expert report is your CV, right? 23 A. Yes. 24 Q. When did you last update it?</p>	<p>1 its levels were higher in women who 2 specifically had clear cell carcinoma. 3 Q. Do any of the publications 4 that do not appear on your reference list 5 concern any of the issues that you deem 6 relevant in this case? 7 MS. CURRY: Object to the 8 form. 9 THE WITNESS: Please repeat 10 that. 11 BY MS. GARBER: 12 Q. Do any of the publications 13 that do not appear on your CV, 14 bibliography, do any -- are any of those 15 relevant as you deem them to the issues 16 in this case? 17 A. I just wanted to clarify. 18 You're asking if any of the papers that 19 I'm a co-author or author on relevant to 20 this topic? 21 Q. That do not appear on your 22 CV? 23 A. That do not appear on my CV? 24 Q. Yes. The ones that you say</p>
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<p>1 A. I believe this is the most 2 recent copy. Let's see. 3 Let's see. This last paper 4 is from January 2019, probably like 5 February or maybe early March. 6 Q. Do you need to make any 7 amendments to make it accurate today? 8 A. I have a few more accepted 9 publications, but they are not up on 10 PubMed, so I don't think so. 11 Q. Do they concern ovarian 12 cancer? 13 A. No. Oh, hold on. I'm 14 sorry. 15 Yes. 16 Q. In what capacity? 17 A. There's one study, which 18 deals with early detection of ovarian 19 cancer where we looked at vaginal fluid 20 as a potential biomarker for women who 21 have an adnexa mass to pick up whether 22 they have ovarian cancer. And we looked 23 at a chemical called LPA, 24 lysophosphatidic acid, and showed that</p>	<p>1 that are not published yet. 2 A. Oh, no. 3 Q. No, they do not concern -- 4 A. No, they do not concern talc 5 and ovarian cancer. 6 Q. Do you consider yourself a 7 research cancer biologist? 8 MS. CURRY: Object to the 9 form. 10 THE WITNESS: No, I would 11 consider someone who does mainly 12 basic science research a 13 biologist. 14 BY MS. GARBER: 15 Q. You don't conduct in vitro 16 studies as part of your practice, right? 17 A. If you see my CV, you'll see 18 some studies that involve in vitro 19 studies. So I collaborate with Ph.Ds. 20 So I'm part of a research team that does 21 perform -- 22 Q. But you don't do the bench 23 work, do you? 24 A. I'm not doing the bench</p>

39 (Pages 150 to 153)

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<p>1 work, no.</p> <p>2 Q. All right. And you don't</p> <p>3 have any degrees in epidemiology, right?</p> <p>4 A. No.</p> <p>5 Q. Did you review any internal</p> <p>6 documents of defendants in this case that</p> <p>7 were produced attendant to this</p> <p>8 litigation?</p> <p>9 A. No, I have not.</p> <p>10 Q. And do you understand that</p> <p>11 United States Senate seeking internal</p> <p>12 company documents relevant to their</p> <p>13 investigation as to whether Johnson &</p> <p>14 Johnson has misrepresented the truth</p> <p>15 about asbestos content in their talcum</p> <p>16 powder products?</p> <p>17 A. I am aware.</p> <p>18 Q. You understand that the</p> <p>19 public, which includes scientists, are</p> <p>20 not normally allowed to review internal</p> <p>21 company documents because manufacturers</p> <p>22 like Johnson & Johnson mark them</p> <p>23 confidential and disclosure can result in</p> <p>24 violation of a protective order? Do you</p>	<p>1 their opinions were based on informed</p> <p>2 scientific medical judgment?</p> <p>3 MS. CURRY: Object to the</p> <p>4 form.</p> <p>5 THE WITNESS: No.</p> <p>6 BY MS. GARBER:</p> <p>7 Q. You disagree with that?</p> <p>8 A. No.</p> <p>9 Q. Pardon?</p> <p>10 A. I disagree with it.</p> <p>11 Q. Which experts -- and I don't</p> <p>12 need to know why. Which experts do you</p> <p>13 think of uninformed scientific opinions?</p> <p>14 MS. CURRY: Object to the</p> <p>15 form.</p> <p>16 THE WITNESS: I would say</p> <p>17 Dr. Clarke-Pearson, Dr. Judith</p> <p>18 Wolf, Ellen Blair Smith.</p> <p>19 BY MS. GARBER:</p> <p>20 Q. Any others?</p> <p>21 A. No, I would restrict it to</p> <p>22 that.</p> <p>23 Q. Okay. And your criticisms</p> <p>24 of those particular doctors as referenced</p>
Page 155	Page 157
<p>1 understand that?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: No, I --</p> <p>5 BY MS. GARBER:</p> <p>6 Q. Do you understand how that</p> <p>7 works?</p> <p>8 A. No, I didn't know that.</p> <p>9 Q. You do?</p> <p>10 A. I don't know that.</p> <p>11 Q. Okay. Do I now have a full</p> <p>12 list of the documents that you considered</p> <p>13 in formulating your opinions as</p> <p>14 referenced in your expert report and</p> <p>15 supplemental materials?</p> <p>16 A. Yes.</p> <p>17 Q. Do you understand, Doctor,</p> <p>18 that I'm entitled to know the literature</p> <p>19 that you considered and the foundation</p> <p>20 for your opinions?</p> <p>21 A. Yes.</p> <p>22 Q. And while you don't agree</p> <p>23 with plaintiffs' causation opinions that</p> <p>24 you reviewed, you do acknowledge that</p>	<p>1 in your expert report, does that consist</p> <p>2 of -- strike that.</p> <p>3 The opinions with regard to</p> <p>4 plaintiffs' experts, Dr. Clarke-Pearson,</p> <p>5 Wolf, and Blair Smith, your criticisms of</p> <p>6 those experts are contained within your</p> <p>7 expert report; is that fair?</p> <p>8 A. That's fair.</p> <p>9 Q. Do you agree that experts</p> <p>10 must use scientific judgment when</p> <p>11 assessing the literature for causality?</p> <p>12 A. Yes, I do.</p> <p>13 Q. And in assessing the</p> <p>14 literature, one person's scientific</p> <p>15 judgment may be different than another</p> <p>16 person's scientific judgment?</p> <p>17 MS. CURRY: Object to the</p> <p>18 form.</p> <p>19 THE WITNESS: I believe</p> <p>20 scientific judgment has a role,</p> <p>21 but I believe that there are</p> <p>22 things that are right and wrong as</p> <p>23 well. And I gave you an example</p> <p>24 of one of them, which was it's</p>

<p style="text-align: right;">Page 158</p> <p>1 wrong to say that something is 2 consistently shown to be 3 associated with something if it's 4 not consistently shown. 5 And -- and I think for 6 statements like that, you can rely 7 on what the general population 8 would consider consistency, or 9 just any reasonable person. So if 10 someone says something is a 11 hallmark of a disease, and there's 12 no good evidence that it is even a 13 part of the disease, then, you 14 know, that's not a judgment call 15 at that point. That's the 16 difference between a misstatement 17 and a -- it's just a misstatement. 18 BY MS. GARBER: 19 Q. We will get to the issue of 20 consistency, Doctor. 21 In addressing -- or in 22 assessing -- strike that. 23 Do you agree that experts 24 can reasonably weigh factors differently?</p>	<p style="text-align: right;">Page 160</p> <p>1 that informs the reader of the 2 methodology that you employed to render 3 your opinions. 4 A. I would have to point to my 5 description of the Bradford Hill 6 criteria. 7 Q. Where does that appear? 8 A. I'll find it for you. 9 Page 19. 10 Q. Doctor, is that a 11 methodology section? I asked you 12 specifically if you could point me to the 13 methodology section. 14 A. No. That does -- that is 15 not a methodology section. 16 Q. And, in fact, you don't have 17 a methodology section in your report, do 18 you? 19 A. I don't have a -- 20 MS. CURRY: Object to the 21 form. 22 THE WITNESS: I don't have a 23 specific section labeled 24 methodology, no.</p>
<p style="text-align: right;">Page 159</p> <p>1 MS. CURRY: Object to the 2 form. 3 THE WITNESS: What I was 4 trying to get at, and I was hoping 5 that we would be able to cover 6 this quickly, but probably not. 7 That -- 8 BY MS. GARBER: 9 Q. Doctor, just yes or no. And 10 you're -- 11 A. I need -- no -- 12 Q. -- going to have an 13 opportunity for your lawyer to ask you 14 questions. 15 A. But ma'am, if you ask a 16 question -- 17 MS. GARBER: Object to form. 18 BY MS. GARBER: 19 Q. I will withdraw the 20 question. 21 A. Okay. 22 Q. Doctor, with regard to 23 methodology, will you please point me to 24 the methodology section in your report</p>	<p style="text-align: right;">Page 161</p> <p>1 BY MS. GARBER: 2 Q. And, in fact, in the four 3 corners of your report you do not state 4 anywhere the methodology that you 5 employed in coming to your opinions. Is 6 that also a true statement? 7 MS. CURRY: Object to the 8 form. 9 THE WITNESS: Throughout my 10 report, within the four corners 11 one could see the methodology I'm 12 using. And then I go onto explain 13 where I got that methodology with 14 Bradford Hill. 15 BY MS. GARBER: 16 Q. Doctor, you understand the 17 methodology is important so that opinions 18 can be replicated, right? 19 When you're reviewing a 20 study, there's a methods section, so that 21 the evaluation can be replicated. You 22 understand that, right? 23 A. Yes. 24 MS. CURRY: Object to the</p>

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<p>1 form.</p> <p>2 BY MS. GARBER:</p> <p>3 Q. You don't have a methodology</p> <p>4 section in your report where --</p> <p>5 A. I do not.</p> <p>6 Q. Thank you.</p> <p>7 Doctor, if we could move</p> <p>8 onto your statements about plaintiffs'</p> <p>9 criticism of not reviewing the totality</p> <p>10 of the literature.</p> <p>11 I want to ask some questions</p> <p>12 of you.</p> <p>13 You did not review the</p> <p>14 totality of the literature relating to</p> <p>15 biologic plausibility, because you did</p> <p>16 not review the Shukla, Buz'Zard, Saed</p> <p>17 references before rendering your expert</p> <p>18 opinion in the case?</p> <p>19 MS. CURRY: Object to the</p> <p>20 form.</p> <p>21 BY MS. GARBER:</p> <p>22 Q. In -- in this case. Do you</p> <p>23 agree with that?</p> <p>24 MS. CURRY: Object to the</p>	<p>1 the studies that you're referring</p> <p>2 to, I did not specifically mention</p> <p>3 those studies at the time that I</p> <p>4 presented my opinion, because my</p> <p>5 view of the Bradford Hill criteria</p> <p>6 was that there's a reason why the</p> <p>7 first one is strength of</p> <p>8 association and the second is</p> <p>9 consistency. And that I felt that</p> <p>10 my reasoning showing the</p> <p>11 inconsistencies there, that</p> <p>12 it's -- it's an interesting</p> <p>13 question to look at biological</p> <p>14 plausibility and -- and -- but</p> <p>15 when you have such weakness in the</p> <p>16 epidemiologic data, I did not</p> <p>17 spend as much time going through</p> <p>18 the biologic plausibility other</p> <p>19 than to the degree that I did,</p> <p>20 because I think -- and it's full</p> <p>21 of weaknesses there as well.</p> <p>22 But no, my opinion, just</p> <p>23 even based on the epidemiology</p> <p>24 is -- is that there isn't a</p>
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<p>1 form.</p> <p>2 THE WITNESS: I believe that</p> <p>3 even though it's -- I didn't have</p> <p>4 a methodology section, I did</p> <p>5 approach this in a method --</p> <p>6 methodical way --</p> <p>7 BY MS. GARBER:</p> <p>8 Q. Doctor, I didn't ask you</p> <p>9 about your methodology.</p> <p>10 A. If I -- if I can finish my</p> <p>11 answer, please.</p> <p>12 MS. CURRY: Please stop</p> <p>13 cutting him off.</p> <p>14 THE WITNESS: So --</p> <p>15 MS. GARBER: Motion to</p> <p>16 strike.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. My question was about</p> <p>19 Shukla, Buz'Zard and Saez --</p> <p>20 MS. SHARKO: You have to let</p> <p>21 him finish his answer. You are</p> <p>22 not allowed to interrupt. Now be</p> <p>23 polite please.</p> <p>24 THE WITNESS: With regard to</p>	<p>1 consistent finding of an</p> <p>2 association with talc use and</p> <p>3 ovarian cancer.</p> <p>4 BY MS. GARBER:</p> <p>5 Q. Doctor, is it your testimony</p> <p>6 that if you look at the epidemiological</p> <p>7 literature and you find it weak, you</p> <p>8 don't then need to go on and review the</p> <p>9 biologic plausibility to render a</p> <p>10 causation opinion?</p> <p>11 MS. CURRY: Object to the</p> <p>12 form.</p> <p>13 BY MS. GARBER:</p> <p>14 Q. Is that your -- is that your</p> <p>15 opinion?</p> <p>16 A. That is not my opinion.</p> <p>17 Q. Okay.</p> <p>18 A. And that's not what I'm</p> <p>19 saying.</p> <p>20 Q. So -- and, Doctor, you did</p> <p>21 not review studies that looked at the</p> <p>22 biologic plausibility for talc and</p> <p>23 ovarian cancer which included Shukla,</p> <p>24 Buz'Zard, and Saed before signing your</p>

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<p>1 report, correct?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: I would argue</p> <p>5 that Buz'Zard is not --</p> <p>6 BY MS. GARBER:</p> <p>7 Q. Doctor, yes or no, did you</p> <p>8 review those or not?</p> <p>9 MS. CURRY: Object to the</p> <p>10 form.</p> <p>11 THE WITNESS: I don't --</p> <p>12 MS. CURRY: Please let him</p> <p>13 finish his response.</p> <p>14 THE WITNESS: You're --</p> <p>15 you're looking for yes or no</p> <p>16 simple answers and you keep --</p> <p>17 BY MS. GARBER:</p> <p>18 Q. I'm not looking for</p> <p>19 paragraphs, Doctor.</p> <p>20 A. -- but -- but you keep</p> <p>21 telling me that you're here to clarify my</p> <p>22 answers. But whenever I get started with</p> <p>23 an answer you cut me off, which makes me</p> <p>24 wonder are you really here to clarify my</p>	<p>1 She's asking him to respond to the</p> <p>2 question.</p> <p>3 And if Dr. Holcomb continues</p> <p>4 not to answer a question, it's an</p> <p>5 appropriate issue to take to</p> <p>6 Judge Pisano and that's what we're</p> <p>7 going to do. So -- so --</p> <p>8 MR. MIZGALA: I want to</p> <p>9 insert here. Because you're</p> <p>10 not -- she's not just asking him</p> <p>11 yes or no about the studies.</p> <p>12 She's characterizing the studies</p> <p>13 in a specific manner and he</p> <p>14 disagrees with that. I think he</p> <p>15 should be able to explain that.</p> <p>16 THE WITNESS: That's exactly</p> <p>17 my feeling about it. It's, the</p> <p>18 question is did I review the</p> <p>19 study --</p> <p>20 BY MS. GARBER:</p> <p>21 Q. Doctor, there's no question</p> <p>22 pending.</p> <p>23 Did you --</p> <p>24 MS. SHARKO: All right. So</p>
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<p>1 answers. Because I can explain to you.</p> <p>2 Buz'Zard --</p> <p>3 Q. I didn't ask you for an</p> <p>4 explanation. I asked you, were they</p> <p>5 listed, yes or no. And your answer was</p> <p>6 no --</p> <p>7 A. Can you go back to your last</p> <p>8 question? Can you go back to the</p> <p>9 question?</p> <p>10 Q. Doctor, you understand I'm</p> <p>11 here to ask questions and you're here to</p> <p>12 answer them.</p> <p>13 A. I'm asking you to repeat</p> <p>14 your question.</p> <p>15 MS. CURRY: Ms. Garber,</p> <p>16 you're not letting him answer the</p> <p>17 question. And please, you can't</p> <p>18 keep talking over each other.</p> <p>19 MS. O'DELL: That's really</p> <p>20 not fair. If she's -- if she's</p> <p>21 asking whether the doctor has</p> <p>22 reviewed a study, that's a yes or</p> <p>23 no question.</p> <p>24 She's not cutting you off.</p>	<p>1 all prior questions are withdrawn.</p> <p>2 MS. GARBER: No --</p> <p>3 MS. SHARKO: She will now</p> <p>4 ask a question and hopefully</p> <p>5 she'll be polite and let you</p> <p>6 answer it. If we have to go to</p> <p>7 the judge about the constant</p> <p>8 interrupting that we've had over</p> <p>9 the last few days, then we will.</p> <p>10 MS. O'DELL: We're here for</p> <p>11 the day. Not for the last few</p> <p>12 days. And the questions aren't</p> <p>13 withdrawn. You're welcome to pose</p> <p>14 a new question.</p> <p>15 And -- and I wanted to say</p> <p>16 for the record the suggestion that</p> <p>17 Ms. Garber is not being polite is</p> <p>18 incorrect, Ms. Sharko.</p> <p>19 MS. SHARKO: I disagree.</p> <p>20 But let's go on.</p> <p>21 There's a lot of silence.</p> <p>22 Are you going to ask a question,</p> <p>23 or are you waiting for the doctor</p> <p>24 to answer the --</p>

<p style="text-align: right;">Page 170</p> <p>1 MS. GARBER: I'm going to -- 2 I'm going to ask a question. 3 MS. SHARKO: Great. Thank 4 you. 5 BY MS. GARBER: 6 Q. Doctor, you did not review 7 Dr. Longo's testing of talcum powder 8 products for the presence of asbestos, 9 fibrous talc, heavy metals and the like, 10 correct? 11 A. That's correct. 12 Q. And you did not present or 13 discuss the study design limitations with 14 the cohort studies. Do you agree with 15 that, yes or no? 16 MS. CURRY: Object to the 17 form. 18 THE WITNESS: Please repeat. 19 BY MS. GARBER: 20 Q. Did you -- you did not 21 present and discuss the study design 22 limitations of the cohort studies, yes or 23 no? 24 A. I'd have to read through the</p>	<p style="text-align: right;">Page 172</p> <p>1 MS. CURRY: Object to the 2 form. 3 BY MS. GARBER: 4 Q. Do you mention her 5 reference -- his references with regard 6 to causation? 7 MS. CURRY: Object to the 8 form. 9 THE WITNESS: No. I 10 reference his study, not his 11 discussion section. 12 BY MS. GARBER: 13 Q. Okay. In your critique of 14 plaintiffs' experts' opinions, you do not 15 state the methodology used in coming to 16 those opinions, correct? 17 MS. CURRY: Object to the 18 form. 19 THE WITNESS: I do discuss 20 the methodology that I used. I 21 don't have a methodology section 22 that you discussed. 23 BY MS. GARBER: 24 Q. You don't discuss the</p>
<p style="text-align: right;">Page 171</p> <p>1 report again. I don't remember. 2 Q. You can't answer that 3 question? 4 A. I can't. 5 Q. Okay. Is it true, Doctor 6 that you did not provide a word of 7 analysis in your report regarding the 8 contrary data to your causation opinion 9 specifically with regard to 10 Penninkilampi, Health Canada or the Taher 11 paper? 12 MS. CURRY: Object to the 13 form. 14 BY MS. GARBER: 15 Q. Is that true? 16 A. Please repeat one more time. 17 Q. Your report does not provide 18 a word of analysis regarding the contrary 19 data to your causation opinion, 20 specifically the Penninkilampi, Health 21 Canada or Taher analysis of causation, 22 correct? 23 A. No, I -- I mentioned 24 Penninkilampi.</p>	<p style="text-align: right;">Page 173</p> <p>1 methodology that you employed in 2 rendering critiques of plaintiffs' 3 experts' opinions, correct? 4 MS. CURRY: Object to the 5 form. 6 THE WITNESS: I just discuss 7 and describe my critiques, yes. 8 BY MS. GARBER: 9 Q. Wouldn't you agree, Doctor, 10 that there's medical consensus that the 11 female genital tract is an open system to 12 facilitate the passage of menses and 13 promote retrograde movement of sperm? 14 MS. CURRY: Object to the 15 form. 16 THE WITNESS: Yes. 17 BY MS. GARBER: 18 Q. Let's talk about your 19 opinions and be sure that I understand 20 what they are. 21 These should be yes or no 22 questions, not why. 23 Okay. Is it your opinion 24 that the literature does not provide a</p>

<p style="text-align: right;">Page 174</p> <p>1 biologically plausible mechanism whereby 2 talcum powder products can migrate from a 3 woman's genitals to her ovaries? 4 MS. CURRY: Object to the 5 form. 6 THE WITNESS: Is it my 7 opinion that it does not provide? 8 BY MS. GARBER: 9 Q. Correct. 10 A. The answer would be yes. 11 Q. Is it your opinion that the 12 literature does not provide a 13 biologically plausible mechanism whereby 14 talcum powder products can induce chronic 15 inflammation, resulting in ovarian 16 cancer? 17 A. I believe that it proves 18 that it can cause chronic inflammation. 19 I don't believe that it's been proven 20 that that causes ovarian cancer. 21 Q. Is it your opinion that 22 talcum powder products do not increase 23 the risk of developing ovarian cancer? 24 A. Yes.</p>	<p style="text-align: right;">Page 176</p> <p>1 BY MS. GARBER: 2 Q. Is your opinion limited to 3 there's no credible evidence -- 4 MS. CURRY: Object to the 5 form. 6 BY MS. GARBER: 7 Q. -- that talc is associated 8 with ovarian cancer? 9 MS. CURRY: Object to the 10 form. 11 THE WITNESS: This is going 12 to be tough for yes or no. I 13 can't answer that with a yes or 14 no. 15 BY MS. GARBER: 16 Q. Okay. As a gynecologic 17 oncologist, you're a member of the 18 Society For Gynecologic Oncology, right? 19 A. Correct. 20 Q. And you've served as a 21 reviewer for the publications submitted 22 to the Journal of Gynecologic Oncology, 23 right? 24 A. Correct.</p>
<p style="text-align: right;">Page 175</p> <p>1 Q. And if talcum powder 2 products contain asbestos, does that 3 opinion change? 4 A. No. 5 Q. Is it your opinion that 6 talcum powder products do not cause 7 ovarian cancer? 8 A. I don't have an opinion. 9 I'm sorry. Talcum powder is -- did you 10 ask the same question twice? 11 Q. No. One was risk, one was 12 cause. 13 A. Oh. 14 Q. Is it your opinion that 15 talcum powder products do not cause 16 ovarian cancer? 17 A. That's my opinion. 18 Q. Is it your opinion that 19 there is no evidence that talc is 20 associated with ovarian cancer? 21 MS. CURRY: Object to the 22 form. 23 THE WITNESS: No, that's not 24 my opinion.</p>	<p style="text-align: right;">Page 177</p> <p>1 Q. And I assume that you 2 believe the journal -- the journal is a 3 reliable source for study data generally? 4 MS. CURRY: Object to the 5 form. 6 THE WITNESS: What's your 7 definition of reliable? 8 BY MS. GARBER: 9 Q. What do you think it means? 10 A. I don't use that term 11 reliable. So I wouldn't use that term. 12 Q. Do you read the journal? 13 A. Yes, I do. 14 Q. And the data that's 15 contained therein generally, do you deem 16 it reliable for what it provides or do 17 you think it's not credible? 18 MS. CURRY: Object to the 19 form. 20 THE WITNESS: Again, if 21 you're saying I believe it's 22 reliable, do I assume that 23 everybody is honestly reporting 24 what they found, that is a general</p>

<p style="text-align: right;">Page 178</p> <p>1 assumption that we hold in 2 academic medicine. And, yes, I 3 make that assumption for 4 gynecologic oncology. 5 There's no way for a 6 reviewer or someone else to know 7 if someone is giving you false 8 information. We assume it's all 9 valid and that they've not lied 10 about anything. So is that what 11 you mean by reliable? 12 BY MS. GARBER: 13 Q. Have you had an experience 14 as a reviewer for Gynecologic Oncology 15 where authors submitted false data? 16 A. What I'm saying is we don't 17 ask for raw data. I've never -- let me 18 say I. I have never asked a submitting 19 scientist for their raw data so that I 20 could look for irregularities. There is 21 a general understanding that you are 22 trusting the person is giving you their 23 findings, and you're reviewing them with 24 that understanding.</p>	<p style="text-align: right;">Page 180</p> <p>1 Q. Okay. I'm going to show you 2 a paper, Doctor. I don't believe it was 3 cited in your expert report. 4 (Document marked for 5 identification as Exhibit 6 Holcomb-8.) 7 BY MS. GARBER: 8 Q. I'm going to mark as 9 Exhibit 8 -- oh, sorry. 10 Doctor, this is a paper that 11 is published in Gynecologic Oncology 12 titled "Talc and Ovarian Cancer" by 13 Steven Narod, the date of this study is 14 2016. 15 Have you read this paper 16 before? 17 A. I've seen it before, yes. 18 Q. And when did you see it? 19 A. When it came out. 20 Q. Okay. Did you review it as 21 a reviewer for -- 22 A. No. 23 Q. Thank you. Let me -- let me 24 get that clear.</p>
<p style="text-align: right;">Page 179</p> <p>1 Q. And based on the fact that 2 you're a reviewer for Gynecologic 3 Oncology, do you tend to trust the data 4 presented in that journal? 5 MS. CURRY: Object to the 6 form. 7 THE WITNESS: When you 8 say -- unfortunately, when you say 9 "trust" -- 10 BY MS. GARBER: 11 Q. That was your word, Doctor. 12 A. You may disagree with the 13 findings, but the word -- when I use the 14 word "trust," that's why I keep on coming 15 back to believing that what the person is 16 giving you is valid, this is actually 17 what they did, that they're not 18 falsifying results. To that degree, I 19 trust those results just as much as any 20 other journal. 21 Whether I find the findings 22 of every study valid, no. Just because 23 it's in GYN Oncology does not mean that I 24 take it as a valid study.</p>	<p style="text-align: right;">Page 181</p> <p>1 Did you review this paper 2 prior to its publication attendant to 3 your reviewer role from time to time with 4 Gynecologic Oncology? 5 A. I did not review this paper 6 before publication. 7 Q. Okay. Let's look at some of 8 the statements that are therein. 9 If you look at, Doctor, the 10 bottom of Page 2. The very last sentence 11 at the bottom of Page 2. 12 And, Doctor, it reads: "In 13 any case, given the number of hazard 14 ratios reported in the literature" -- 15 A. I'm -- I'm sorry, I'm 16 looking for you. Bottom of 2. 17 Q. Doctor, you can look up here 18 at the Elmo. 19 A. Yes. 20 Q. And see where I am. I'm at 21 the bottom of 2, Page 2. Left-hand 22 column. 23 A. Okay. Left-hand column. 24 That helps. Okay.</p>

<p style="text-align: right;">Page 182</p> <p>1 Q. And -- and it says, "This 2 article about talc and ovarian cancer 3 indicates in any case given the number of 4 hazard ratios reported in the literature 5 between 1.1 and 1.4 in both case-control 6 and cohort studies, it would be 7 disingenuous to state that there is no 8 evidence that talc is associated with 9 ovarian cancer." 10 Did I read that correctly? 11 A. Yes, you read it correctly. 12 Q. Yes or no, do you agree with 13 that statement? 14 A. It's actually a question you 15 already asked me and I agreed. 16 Q. Let's look at some of the 17 other statements in this paper and see if 18 you agree with them. 19 If you go over to the first 20 page, Doctor, right-hand column. 21 As to the issue of 22 consistency, it indicates, "The 23 case-control studies to date are 24 consistent. Given the small effect size</p>	<p style="text-align: right;">Page 184</p> <p>1 inconsistency. Some are positive and 2 some are negative. 3 So you read it correctly. I 4 think it's a contradictory statement. 5 He's saying they are consistent, and then 6 says some are positive, some are 7 negative. That's not my definition of 8 consistency. 9 Q. Doctor, this study author 10 is -- in a peer-reviewed paper said that 11 the data are consistent. Do you agree 12 with that? 13 A. And then himself says some 14 are positive and some are negative. And 15 I'm asking, my definition of consistency 16 means that they say the same thing. 17 Q. I didn't ask you for what -- 18 why. I said did this study author in a 19 peer-reviewed journal call the data 20 consistent, yes or no? 21 A. Yes. Yes. 22 Q. Thank you. You didn't 23 present that in your expert report that 24 there are peer-reviewed published authors</p>
<p style="text-align: right;">Page 183</p> <p>1 it is not surprising that some are 2 positive, i.e., show a consistent" -- 3 "show a significant increase in risk and 4 some are negative, i.e., show a 5 nonconsistent increased risk." 6 MS. CURRY: You keep saying 7 consistent, but the word is 8 significant. 9 MS. GARBER: Significant. 10 BY MS. GARBER: 11 Q. Let me start again. 12 "The case-control studies to 13 date are consistent. Given the small 14 effect size it is not surprising that 15 some are positive, i.e., show a 16 significant increased risk and some are 17 negative, i.e., show a nonsignificant 18 increase in risk or no risk difference." 19 Did I read that correctly? 20 A. Yes. 21 Q. Do you disagree with that? 22 A. It's interesting. He says 23 the case-control studies are consistent, 24 and then goes on to describe</p>	<p style="text-align: right;">Page 185</p> <p>1 who say the data are consistent, did you? 2 MS. CURRY: Object to the 3 form. 4 THE WITNESS: I would like 5 to say that this is a -- this -- 6 there's a difference between a 7 paper and a news -- a story in a 8 newspaper that a reporter wrote 9 and an op Ed. 10 This is the medical version 11 of an op Ed. I'm not going to be 12 citing op Eds. I'm going to be 13 citing the literature that's based 14 on. 15 And -- and you find the 16 difficulty with what Dr. Narod is 17 saying here in his own statement. 18 It's contradictory. He could -- 19 it would have made more sense if 20 he said I can explain away the 21 inconsistency. Because the effect 22 size is low you can expect to see 23 inconsistent data. But you can't 24 say it's consistent, some are</p>

<p style="text-align: right;">Page 186</p> <p>1 positive, some are negative. 2 BY MS. GARBER: 3 Q. Doctor, let's -- let's turn 4 to Table 1 of your expert report. And 5 I'll mark that as Exhibit 9. 6 (Document marked for 7 identification as Exhibit 8 Holcomb-9.) 9 BY MS. GARBER: 10 Q. And this appears in your 11 expert report, correct? 12 A. Correct. 13 Q. And it is separated by -- 14 I -- I've produced a color copy, right? 15 A. Yes. 16 Q. Yeah. And it is -- there 17 appears to be shaded studies that appear 18 to be in a -- in a blue color; is that 19 right? 20 A. Correct. 21 Q. And then those that are not 22 shaded, right? 23 A. That's correct. 24 Q. And then you have shaded</p>	<p style="text-align: right;">Page 188</p> <p>1 case-control data are unreliable because 2 they are inconsistent based on some 3 studies lack statistical significance? 4 MS. CURRY: Object to the 5 form. 6 BY MS. GARBER: 7 Q. Is that your opinion? 8 A. I'm -- no. Please repeat 9 that again. 10 Q. Sure. 11 Is it your opinion that the 12 case-control data are unreliable because 13 they are inconsistent based on some 14 studies lack statistical significance? 15 A. No. It's my opinion that 16 it's not reliable because those studies 17 that lack statistical significance are 18 actually showing no increased risk, no -- 19 no -- we -- we use statistical 20 significance to say that that increased 21 risk was more than just by chance. So 22 the lack of statistical significance is 23 what leads to the inconsistency. 24 Q. Okay. So you believe that</p>
<p style="text-align: right;">Page 187</p> <p>1 the -- some of the studies in blue and 2 why are those studies shaded in blue? 3 A. They are shaded in blue, 4 because they have 95 -- 95 percent 5 confidence intervals that cross one. And 6 that is not a statistically significant 7 finding whether it's showing an increase 8 or a decrease. 9 Q. Did you create this table? 10 A. Yes, I did. 11 Q. On your computer? 12 A. Yes. 13 Q. And you put all the data 14 into this table and -- and color-coded 15 it? 16 A. Yes. 17 Q. In your expert report at 18 Page 10, you indicate that the -- with 19 regard to the case-control studies, the 20 risk estimates range between 1.2 and 1.6, 21 suggesting a 20 to 60 percent increased 22 risk; is that right? 23 A. Yes. 24 Q. And so, you believe that the</p>	<p style="text-align: right;">Page 189</p> <p>1 the case-control studies are inconsistent 2 because some of the studies don't show 3 statistical significance because the 4 confidence interval crosses one; is that 5 fair? 6 A. In the materials and 7 methods, like you asked me to have a 8 methods section, they will say before 9 they look at the data, and this is what 10 you do, so you're not biased, you say 11 we're going to consider this significant 12 at this level. We're going to consider 13 this a positive study at this level, and 14 then you go and you do your analysis. 15 And when it doesn't reach that level, 16 whether it's above or below, you don't 17 come out of that study saying there's 18 a -- there's a significant risk of 19 ovarian cancer associated with talc. 20 So everything that's shaded 21 in blue, those things are negative 22 studies. 23 Q. Doctor, do you remember my 24 question?</p>

<p style="text-align: right;">Page 190</p> <p>1 A. I felt the need to clarify 2 why I think this is inconsistent. It's 3 not just -- it's because yes, they 4 don't -- they -- they -- 5 Q. Doctor, excuse me. 6 A. Yes. 7 Q. I'm going to interrupt you 8 there, because -- 9 MS. SHARKO: You can't do 10 that. 11 BY MS. GARBER: 12 Q. I -- you -- you understood 13 my question, yet you felt the need to 14 clarify. 15 That isn't what I've asked 16 you to do. I've asked you a very simple 17 question: What's the nature of this 18 Table 1, and then you launched into what 19 the study authors do. 20 A. I -- I think I might be 21 mistaken about the purpose of this -- 22 MS. CURRY: Ms. Garber -- 23 hold on. Can I just state an 24 objection on the record, please?</p>	<p style="text-align: right;">Page 192</p> <p>1 because they're inconsistent with those 2 that do show statistical significance? 3 MS. CURRY: Object to the 4 form. 5 THE WITNESS: Because they 6 are inconsistent with -- no. 7 BY MS. GARBER: 8 Q. Okay. Doctor, if we look at 9 Table 1, with the exception of, I think, 10 two studies, every one of those relative 11 risks are all to the right of one, are 12 they not? 13 A. Yes. 14 Q. And you have odds ratio, 15 relative risk. Which is it for the 16 case-control studies? 17 MS. CURRY: Object to the 18 form. 19 BY MS. GARBER: 20 Q. Which would be proper? 21 A. An odds ratio. 22 Q. Okay. And so -- 23 A. I'm sorry. Hold on. I'm 24 sorry. One second. I'm sorry. It's the</p>
<p style="text-align: right;">Page 191</p> <p>1 THE WITNESS: Okay. 2 MS. SHARKO: The question, 3 if he can't answer it without 4 clarifying, then he's entitled to 5 clarify the question. 6 And the question was broader 7 than what you just stated. It 8 was, because it asked specifically 9 whether or not the case-control 10 studies are inconsistent because 11 it doesn't show statistical 12 significance. 13 BY MS. GARBER: 14 Q. Doctor, is it your opinion 15 that the studies that do not show 16 statistical significance are unreliable 17 and attributable to chance? 18 A. Yes. 19 Q. And is it your opinion that 20 the case-control studies that do not 21 show -- strike that. 22 Is it your opinion that the 23 studies do not -- that do not show 24 statistical significance are unreliable</p>	<p style="text-align: right;">Page 193</p> <p>1 other way around. Case-control would be 2 relative risk. 3 Q. Are you sure? 4 A. Yeah. 5 Q. And all of those studies are 6 to the right of one except two, right? 7 A. Right. 8 Q. And so all of those are 9 positive because they're to the right of 10 one, correct? 11 A. No, that's -- 12 MS. CURRY: Object to the 13 form. 14 THE WITNESS: That's a 15 misunderstanding of statistics. 16 They are not positive because 17 they're to the right of one. It's 18 defined in the study what they 19 were going to consider a positive 20 study. It had to be above one and 21 have a 95 percent chance that the 22 true risk estimate was within the 23 range of the 95 percent confidence 24 interval. So once it drops below</p>

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<p>1 one, you're saying the author</p> <p>2 themselves, by doing the</p> <p>3 statistics, by putting that in the</p> <p>4 materials and methods, they're</p> <p>5 saying I don't consider this a</p> <p>6 positive study unless I achieve a</p> <p>7 positive direction above one and</p> <p>8 the 95 percent confidence interval</p> <p>9 does not cross one, otherwise why</p> <p>10 bother doing that?</p> <p>11 BY MS. GARBER:</p> <p>12 Q. Can you give me any article,</p> <p>13 treatise, authority, that supports that</p> <p>14 claim that for a study to be positive, it</p> <p>15 needs to be greater than one and reach</p> <p>16 statistical significance?</p> <p>17 A. Any treatise?</p> <p>18 Q. Any -- any authority to</p> <p>19 support that claim?</p> <p>20 A. Again, I think for each</p> <p>21 individual paper, I could go through the</p> <p>22 materials and methods, and the author who</p> <p>23 wrote that paper will describe, before</p> <p>24 they started collecting data, their</p>	<p>1 off the top of your head?</p> <p>2 A. No. It's such -- you're</p> <p>3 asking something that is so widely</p> <p>4 accepted, that it would be like finding</p> <p>5 an authority that says water is H2O. I</p> <p>6 mean, it's -- I could find a nice review</p> <p>7 article that explains, and this all comes</p> <p>8 down to the quality of the study, and in</p> <p>9 the study design how much risk is there</p> <p>10 for a spurious value, for a confounder or</p> <p>11 for a recall bias to play a role.</p> <p>12 And that's why you have -- I</p> <p>13 think of 95 confidence intervals as your</p> <p>14 bumpers, your safety bumpers that keep</p> <p>15 you from making a mistake.</p> <p>16 Q. Is the point estimate the</p> <p>17 best estimate of risk?</p> <p>18 MS. CURRY: Object to the</p> <p>19 form.</p> <p>20 THE WITNESS: The point</p> <p>21 estimate has to be taken into</p> <p>22 account with the 95 percent</p> <p>23 confidence intervals.</p> <p>24 BY MS. GARBER:</p>
Page 195	Page 197
<p>1 methodology. And what they were going to</p> <p>2 consider significant.</p> <p>3 Q. Do you understand that to be</p> <p>4 authority?</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: I'm saying for</p> <p>8 each individual person that's</p> <p>9 doing the study, that is their</p> <p>10 definition of what they considered</p> <p>11 a positive study.</p> <p>12 BY MS. GARBER:</p> <p>13 Q. I understand that. I'm</p> <p>14 asking you for an authoritative paper</p> <p>15 that indicates your definition of a</p> <p>16 positive study meaning greater than one</p> <p>17 that reached statistical significance</p> <p>18 constitutes a positive study. Can you</p> <p>19 please give me an authority for that</p> <p>20 statement?</p> <p>21 A. I'm sure if you gave me the</p> <p>22 time I could find it. But I don't have</p> <p>23 one that I can quote you now.</p> <p>24 Q. You can't come up with one</p>	<p>1 Q. That wasn't my question. Is</p> <p>2 the point estimate the best estimate of</p> <p>3 risk?</p> <p>4 MS. CURRY: Object to the</p> <p>5 form.</p> <p>6 THE WITNESS: I don't</p> <p>7 understand your question. As</p> <p>8 opposed to what?</p> <p>9 BY MS. GARBER:</p> <p>10 Q. In looking at the data, in</p> <p>11 looking --</p> <p>12 A. As opposed to what though?</p> <p>13 All you get is the point estimate and the</p> <p>14 95 percent confidence interval. So</p> <p>15 you're saying it's better than what?</p> <p>16 Q. You've never seen that</p> <p>17 statement that the point estimate is the</p> <p>18 best estimate of risk?</p> <p>19 A. Have you heard the term</p> <p>20 "compared to what"?</p> <p>21 Q. Okay. Doctor, what is your</p> <p>22 definition of a negative study?</p> <p>23 A. A negative study is a study</p> <p>24 that doesn't reach your predefined</p>

<p style="text-align: right;">Page 198</p> <p>1 definition of a positive study. Anything 2 that doesn't reach your definition of a 3 positive study -- there's no in between. 4 It's either positive or negative. 5 Q. So your definition of 6 negative is a study which can be to the 7 right of one or greater than one, but 8 doesn't reach statistical significance? 9 That's how -- 10 A. Say this once again. 11 Q. That's how you define a 12 negative study? 13 MS. CURRY: Object to the 14 form. 15 THE WITNESS: I do. And the 16 reason being is because when you 17 think about the problems with 18 case-control studies, and it's 19 every -- all the experts on both 20 sides talk about this risk of 21 recall bias. Recall bias never 22 sends your numbers below zero. 23 BY MS. GARBER: 24 Q. Doctor, did I ask you about</p>	<p style="text-align: right;">Page 200</p> <p>1 Holcomb-10.) 2 BY MS. GARBER: 3 Q. I'm going to mark as 4 Exhibit 10 a paper that was just 5 published. Doctor, in just looking at 6 this paper -- this paper was just 7 published on March 21st, here at the 8 bottom. March 21, 2019, in Nature. 9 Do you -- do you know that 10 journal? 11 A. Yes. 12 Q. And what's your opinion of 13 that journal? 14 A. Nature? 15 Q. Mm-hmm. 16 A. It's a highly respected 17 journal. 18 Q. Thank you. 19 And do you see that the 20 title of this article is "Retire 21 Statistical Significance"? 22 A. Yes. And this is a comment 23 in the highly respected journal. Again, 24 this is an op Ed piece, not -- this is</p>
<p style="text-align: right;">Page 199</p> <p>1 recall bias? 2 A. And I'm explaining why I 3 have this opinion. 4 Q. I didn't ask you why you 5 have your opinion. 6 A. Then I'll withdraw my 7 statement. 8 Q. Your lawyer will be able to 9 ask you questions. Thank you, Doctor. 10 Doctor, have you cited any 11 authority to support your claims that 12 studies that don't show statistical 13 significance are attributable to chance 14 and bias? 15 A. No. That's not -- that's 16 not my claim, first of all. 17 Q. Okay. Doctor, do you know 18 who Sander Greenland is? 19 A. No. 20 Q. Do you know who Kenneth 21 Rothman is? 22 A. No. 23 (Document marked for 24 identification as Exhibit</p>	<p style="text-align: right;">Page 201</p> <p>1 not a study. 2 Q. Doctor, do you see who the 3 study authors are? 4 A. Yes. 5 Q. And do you see that Sander 6 Greenland is one of the study authors? 7 A. Yes. 8 Q. And do you see that it goes 9 on to say, "And more than 800 signatories 10 call for an end to the hyped claim and 11 dismissal of possibly crucial effects." 12 Do you see that? That's 13 the -- 14 A. Yes, I do see that. 15 Q. All right. And let's look 16 at this paper, if we could, together. 17 It begins by stating, "When 18 was the last time you heard a seminar 19 speaker claim that there was no 20 difference between two groups because the 21 difference was statistically 22 nonsignificant?" 23 Did I read that correctly? 24 A. You read that correctly.</p>

<p style="text-align: right;">Page 202</p> <p>1 Q. So this is a paper, just 2 from the introduction at least, looking 3 like it's going to talk about statistical 4 versus non-statistical data using the 5 95 percent confidence interval, right? 6 A. Right. 7 MS. CURRY: Object to the 8 form. 9 BY MS. GARBER: 10 Q. Is that fair? 11 And then if you go to the 12 section which indicates the pervasive 13 problem. It says, "Let's be clear about 14 what must stop. We should never conclude 15 that there is no difference or no 16 association just because a P-value is 17 larger than a threshold such as 2 18 point" -- "such as 0.05." 19 And then we turn to the next 20 page, "or equivocally because a 21 confidence interval includes zero." 22 MS. CURRY: Take the time to 23 look it through. 24 BY MS. GARBER:</p>	<p style="text-align: right;">Page 204</p> <p>1 It is equally absurd to claim that these 2 results were in contrast with earlier 3 results showing an identical observed 4 result, yet these common practices show 5 how reliance on thresholds of statistical 6 significance can" -- "can mislead us (See 7 'Beware false conclusions')." 8 Did I read that correctly? 9 A. You did. 10 Q. And -- and that's, in fact, 11 what you've done in Table 1, haven't you? 12 MS. CURRY: Object to the 13 form. 14 BY MS. GARBER: 15 Q. You've tried to separate 16 them by statistically significant and 17 nonstatistically significant, correct? 18 A. As -- as much -- I did 19 divide them by significance and 20 nonsignificance. 21 Based on these doctors -- 22 I'm not familiar with them. But they are 23 clearly worried about missing significant 24 effects that are small, and I'm not</p>
<p style="text-align: right;">Page 203</p> <p>1 Q. "Neither should we include 2 that two studies conflict because one has 3 a statistically significant result and 4 the other did not. These errors waste 5 research efforts and misinform policy 6 decisions." 7 Did I read that correctly, 8 Doctor? 9 A. Yes, you read that 10 correctly. 11 Q. That's the opinion of these 12 authors and 800 signatories, correct? 13 MS. CURRY: Object to the 14 form. 15 THE WITNESS: I haven't read 16 the full paper, but that's what 17 the title says, yes. 18 BY MS. GARBER: 19 Q. All right. Let's go on to 20 read further down where it indicates, "It 21 is ludicrous to conclude that the 22 statistically nonsignificant results 23 showed no association when the interval 24 estimate included serious risk increases.</p>	<p style="text-align: right;">Page 205</p> <p>1 saying I'm not interested in small effect 2 sizes. But I'm saying that because of 3 the risk of -- of confounders and other 4 biases, that you need to find -- if 5 you're going to have a small effect size, 6 you're going to need to find consistency 7 along -- the -- the onus is going to be 8 even stronger to prove that you're not 9 making a spurious conclusion. Because I 10 would imagine, being Nature contributors, 11 these are likely basic science 12 researchers. And I can show you example 13 after example in clinical medicine where 14 nonsignificant findings led to wrong 15 results. Whether -- and I give some 16 examples in my report with, you know, 17 what causes cervix cancer, the effect of 18 estrogen replacement therapy. These 19 things that we did not use the safety 20 bumpers of 95 percent confidence 21 intervals. It just -- it doesn't mean 22 that the studies should stop. It just 23 means -- and that you have a definitive 24 answer. It means that that should raise</p>

<p style="text-align: right;">Page 206</p> <p>1 questions for you and that should make</p> <p>2 you think that there may be something</p> <p>3 else going on.</p> <p>4 MS. GARBER: Objection.</p> <p>5 Motion to strike as nonresponsive.</p> <p>6 BY MS. GARBER:</p> <p>7 Q. Doctor, what we're talking</p> <p>8 about here is ovarian cancer, correct?</p> <p>9 A. Correct.</p> <p>10 Q. We're talking about a risk</p> <p>11 of a deadly disease, correct?</p> <p>12 A. I treat ovarian cancer,</p> <p>13 ma'am. We don't have to go through the</p> <p>14 fact it's deadly.</p> <p>15 Q. Right. And -- and so here</p> <p>16 there is a body of literature over</p> <p>17 40 years that's looked at the topic,</p> <p>18 right?</p> <p>19 A. Right.</p> <p>20 Q. And that body of literature</p> <p>21 has consistent odds ratios throughout</p> <p>22 case-control, cohort and -- and</p> <p>23 meta-analyses?</p> <p>24 A. Cohort, no --</p>	<p style="text-align: right;">Page 208</p> <p>1 that he is a plaintiffs' expert</p> <p>2 here? I'm just curious.</p> <p>3 MS. GARBER: Let's -- let's</p> <p>4 go on.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. Doctor --</p> <p>7 MS. O'DELL: Susan, that's</p> <p>8 totally inappropriate. Stop</p> <p>9 coaching the witness.</p> <p>10 MS. SHARKO: I'm not. I'm</p> <p>11 not coaching him. I'm asking you.</p> <p>12 MS. O'DELL: He's not my</p> <p>13 expert. I don't know what you're</p> <p>14 talking about.</p> <p>15 MS. SHARKO: You identified</p> <p>16 him as an plaintiffs' expert.</p> <p>17 MS. O'DELL: I did not.</p> <p>18 MS. SHARKO: Yeah, you did.</p> <p>19 Look at your disclosures.</p> <p>20 All right. We'll send --</p> <p>21 we'll send you a letter on this,</p> <p>22 because I'm concerned about that.</p> <p>23 MS. GARBER: So I -- I would</p> <p>24 just like to say I would</p>
<p style="text-align: right;">Page 207</p> <p>1 MS. CURRY: Object to the</p> <p>2 form.</p> <p>3 THE WITNESS: I disagree</p> <p>4 with that.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. You do?</p> <p>7 A. Yeah.</p> <p>8 Q. Okay. The cohort studies</p> <p>9 are showing, aside from the Gonzalez</p> <p>10 study, they are all showing numbers that</p> <p>11 are to the right of one, aren't they?</p> <p>12 MS. CURRY: Object to the</p> <p>13 form.</p> <p>14 BY MS. GARBER:</p> <p>15 Q. For every use?</p> <p>16 A. For example, Gates is 1.06.</p> <p>17 Q. Mm-hmm. That's to the right</p> <p>18 of one, isn't it?</p> <p>19 A. Yes, ma'am. Just right to</p> <p>20 the right of one.</p> <p>21 Q. Okay. Let's -- let's carry</p> <p>22 on with this paper.</p> <p>23 MS. SHARKO: Why doesn't --</p> <p>24 why doesn't Dr. Greenland disclose</p>	<p style="text-align: right;">Page 209</p> <p>1 appreciate it, Ms. Sharko, if you</p> <p>2 could stop coaching. I understand</p> <p>3 your need to, you know, speak up,</p> <p>4 but Ms. Curry is completely</p> <p>5 capable of defending the doctor.</p> <p>6 And your coaching only frustrates</p> <p>7 the process.</p> <p>8 And -- and I will go to the</p> <p>9 Court if we need to, because it's</p> <p>10 not fair. And you know it.</p> <p>11 MS. SHARKO: Right. There's</p> <p>12 no coaching. I asked you --</p> <p>13 MS. GARBER: There is</p> <p>14 coaching, Ms. Sharko. You -- you</p> <p>15 have just coached him about</p> <p>16 Dr. Greenland, so --</p> <p>17 MS. SHARKO: You are</p> <p>18 interrupting me. You are</p> <p>19 interrupting me.</p> <p>20 MS. GARBER: Because, you</p> <p>21 know what, we're on the record.</p> <p>22 So we'll have this topic off the</p> <p>23 record later if we like.</p> <p>24 MS. SHARKO: Are you going</p>

<p style="text-align: right;">Page 210</p> <p>1 to interrupt me off the record?</p> <p>2 There's no question pending.</p> <p>3 It's a question for the plaintiffs</p> <p>4 and we'll pursue it. We'll pursue</p> <p>5 it off the record.</p> <p>6 BY MS. GARBER:</p> <p>7 Q. Doctor, could you look at</p> <p>8 the bottom of this document. And it</p> <p>9 indicates: "Beware of false conclusions.</p> <p>10 Studies currently dubbed statistically</p> <p>11 significant and statistically</p> <p>12 nonsignificant need not be contradictory,</p> <p>13 and as such, designations might cause</p> <p>14 genuine effects to be dismissed."</p> <p>15 Do you see that?</p> <p>16 A. Yes.</p> <p>17 Q. The study authors are very</p> <p>18 concerned about risk of disease being</p> <p>19 dismissed because a body of literature</p> <p>20 shows statistical significance and</p> <p>21 another one showing near statistical</p> <p>22 significance, but experts like you,</p> <p>23 dismissing that risk, they are concerned</p> <p>24 about that, aren't they?</p>	<p style="text-align: right;">Page 212</p> <p>1 A. So I'm here to give you my</p> <p>2 opinions --</p> <p>3 Q. I don't --</p> <p>4 A. -- but you're not -- you're</p> <p>5 not really interested in my opinions --</p> <p>6 Q. What I --</p> <p>7 A. -- because every time I try</p> <p>8 to offer it to you, you cut me off and</p> <p>9 you want me to tell you, are you reading</p> <p>10 his opinions correctly.</p> <p>11 Q. No, Doctor, I'm asking for</p> <p>12 yours.</p> <p>13 A. I believe you can read it.</p> <p>14 Q. Do you agree with that?</p> <p>15 That was my question. Do you agree with</p> <p>16 these study authors?</p> <p>17 A. Can you repeat the</p> <p>18 statement?</p> <p>19 Q. Okay. Do you agree with</p> <p>20 these -- strike that.</p> <p>21 These study authors are</p> <p>22 concerned about dismissing genuine</p> <p>23 effects.</p> <p>24 A. Do I agree that they're</p>
<p style="text-align: right;">Page 211</p> <p>1 A. Because I'm -- I'm</p> <p>2 concerned --</p> <p>3 MR. MIZGALA: Object to the</p> <p>4 form.</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: What I'm</p> <p>8 concerned about is if you have a</p> <p>9 group of studies that are all the</p> <p>10 same design that are subject --</p> <p>11 BY MS. GARBER:</p> <p>12 Q. Doctor, I didn't ask you</p> <p>13 that. I asked you yes or no, is that the</p> <p>14 author's conclusions in your opinion?</p> <p>15 MR. MIZGALA: Object to the</p> <p>16 form.</p> <p>17 THE WITNESS: The author is</p> <p>18 not here speaking in front of the</p> <p>19 camera. I'm here because you</p> <p>20 asked me my opinions. And if you</p> <p>21 want me to just read their</p> <p>22 opinions, you don't need me here.</p> <p>23 BY MS. GARBER:</p> <p>24 Q. I don't want that. I --</p>	<p style="text-align: right;">Page 213</p> <p>1 concerned?</p> <p>2 Q. Yes.</p> <p>3 MR. MIZGALA: Object to the</p> <p>4 form.</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: They're</p> <p>8 obviously concerned. They wrote</p> <p>9 the paper.</p> <p>10 BY MS. GARBER:</p> <p>11 Q. Okay. That was my first</p> <p>12 question --</p> <p>13 A. Right.</p> <p>14 Q. -- you didn't answer. Now</p> <p>15 my second question is --</p> <p>16 MS. SHARKO: Objection.</p> <p>17 MS. GARBER: Strike my</p> <p>18 second question. Let's move on.</p> <p>19 MS. SHARKO: Thank you.</p> <p>20 MS. GARBER: You know what?</p> <p>21 I just -- I don't think I've ever</p> <p>22 had another lawyer treat me as</p> <p>23 disrespectfully as you,</p> <p>24 Ms. Sharko. I just can't believe</p>

<p style="text-align: right;">Page 214</p> <p>1 it. Okay.</p> <p>2 MS. SHARKO: I have great</p> <p>3 respect for you, Ms. Garber. It's</p> <p>4 not my intention to make you feel</p> <p>5 disrespected.</p> <p>6 MS. GARBER: When you laugh</p> <p>7 and you make snide comments, it's</p> <p>8 hard to see that you have great</p> <p>9 respect for me.</p> <p>10 MS. SHARKO: I haven't</p> <p>11 laughed or made snide comments,</p> <p>12 but let's move on.</p> <p>13 BY MS. GARBER:</p> <p>14 Q. Okay. If we move on to the</p> <p>15 middle of the column. The authors say,</p> <p>16 "We agree on the call for the entire</p> <p>17 concept of statistical significance to be</p> <p>18 abandoned. We are far from alone." And</p> <p>19 it goes onto describe, 250 people signed</p> <p>20 on in the first 24 hours and another 800</p> <p>21 experts.</p> <p>22 Do you see that?</p> <p>23 A. Yes.</p> <p>24 Q. And so it's not just these</p>	<p style="text-align: right;">Page 216</p> <p>1 A. I do.</p> <p>2 Q. And you're drawing</p> <p>3 categorical differences in the data</p> <p>4 between statistically significant and</p> <p>5 non-statistically significant, correct?</p> <p>6 MS. CURRY: Object to the</p> <p>7 form.</p> <p>8 THE WITNESS: Will I be able</p> <p>9 to explain for my reasons doing</p> <p>10 so? Or are just going to see if I</p> <p>11 agree with everything that they</p> <p>12 say?</p> <p>13 BY MS. GARBER:</p> <p>14 Q. You know what? Your lawyer</p> <p>15 can ask you questions --</p> <p>16 A. Okay.</p> <p>17 Q. -- that you want asked of</p> <p>18 you --</p> <p>19 A. Okay.</p> <p>20 Q. -- Doctor. But this is my</p> <p>21 opportunity to ask you questions that I</p> <p>22 want to ask you.</p> <p>23 A. Sure.</p> <p>24 Q. And finally, turning over to</p>
<p style="text-align: right;">Page 215</p> <p>1 study authors. It's -- it's other</p> <p>2 experts in the field, right?</p> <p>3 MS. CURRY: Object to the</p> <p>4 form.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. Do you understand that from</p> <p>7 reading this or do you need to read the</p> <p>8 whole paper?</p> <p>9 MS. CURRY: Object to the</p> <p>10 form.</p> <p>11 THE WITNESS: I agree that</p> <p>12 you read the segment correctly.</p> <p>13 BY MS. GARBER:</p> <p>14 Q. Okay. And then, Doctor,</p> <p>15 finally, under -- at the right-hand side</p> <p>16 under the heading "Quit Categorizing,"</p> <p>17 the authors write, "The trouble is human</p> <p>18 and cognitive more than statistical.</p> <p>19 Bucketing results into statistical</p> <p>20 significance and statistical</p> <p>21 non-significance makes people think that</p> <p>22 the items assigned in the way" -- "in</p> <p>23 that way are categorically different."</p> <p>24 Do you see that?</p>	<p style="text-align: right;">Page 217</p> <p>1 the next page. The -- under the heading</p> <p>2 of "Wrong Interpretations," it reads, "An</p> <p>3 analysis of 791 articles across five</p> <p>4 journals found that around half</p> <p>5 mistakenly assume non-significance means</p> <p>6 no effect."</p> <p>7 Did I read that correctly?</p> <p>8 A. Yes.</p> <p>9 Q. And so, finally, turning</p> <p>10 over to page -- to the right-hand column,</p> <p>11 the authors conclude, "But eradicating</p> <p>12 categorization will help to halt</p> <p>13 overconfident claims, unwarranted</p> <p>14 declarations of no difference, and absurd</p> <p>15 statements about replication failure when</p> <p>16 the results from the original and</p> <p>17 replication studies are highly</p> <p>18 compatible.</p> <p>19 "The misuse of statistical</p> <p>20 significance has done much harm to the</p> <p>21 science community and those who rely on</p> <p>22 scientific evidence. P-values, intervals</p> <p>23 and other statistical measures all have</p> <p>24 their place, but it's time for</p>

<p style="text-align: right;">Page 218</p> <p>1 statistical significance to go." 2 And I assume that you 3 disagree with these 800-some authors? 4 MS. CURRY: Object to the 5 form. 6 THE WITNESS: If you say 7 P-value has its place, what is its 8 place if not to determine 9 significance? That's all a 10 P-values is. So I would want to 11 know from the authors, if P-values 12 have their place and it's not in 13 determining significance, what 14 exactly is the place for a 15 P-value? It's only used for one 16 thing, determining significance. 17 BY MS. GARBER: 18 Q. What was my question, 19 Doctor? 20 A. I'm sorry. 21 Q. What was my question? 22 A. I don't remember. 23 Q. Okay. My question was, I 24 assume you disagree with those authors;</p>	<p style="text-align: right;">Page 220</p> <p>1 sorry. They want to get rid of 2 statistical significance altogether. 3 Q. You read Health Canada? 4 A. Yes. 5 Q. Let's look at what Health 6 Canada said about the consistency of the 7 study data. Okay? 8 A. Are you going to provide 9 something? 10 Q. I'm going to mark the Health 11 Canada draft screening assessment dated 12 December 2010 as Exhibit 11. 13 A. Thank you. 14 (Document marked for 15 identification as Exhibit 16 Holcomb-11.) 17 BY MS. GARBER: 18 Q. There, Doctor, the study 19 authors indicated that, "The 20 meta-analyses of the available human 21 studies in the peer-reviewed literature 22 indicate a consistent and statistically 23 significant positive association between 24 perineal exposure to talc and ovarian</p>
<p style="text-align: right;">Page 219</p> <p>1 is that correct? 2 A. Yes. 3 Q. So in accord with the study 4 authors of the paper we just reviewed, 5 the case-control data as presented in 6 your Table 1 should not be deemed 7 different or inconsistent based on the 8 confidence interval under the authority 9 of the paper we just reviewed, correct? 10 MS. CURRY: Object to the 11 form. 12 THE WITNESS: Under my 13 authority, I would say they should 14 be considered different. 15 BY MS. GARBER: 16 Q. Under the authority of the 17 paper that we just reviewed -- 18 A. Oh, these doctors want to 19 get rid of statistics altogether. So we 20 wouldn't even -- yeah, they would say 21 don't bother doing them. 22 Q. Where do you see that these 23 doctors want to get rid of statistics? 24 A. Statistical significance,</p>	<p style="text-align: right;">Page 221</p> <p>1 cancer." 2 Do you agree with that, that 3 that's what the meta-analyses show? 4 A. Yes. 5 Q. You disagree? 6 MS. CURRY: Object to the 7 form. 8 BY MS. GARBER: 9 Q. You think -- 10 A. No. They're talking about 11 the meta-analyses? 12 Q. Yes. Do you agree with 13 that? 14 A. I believe they take a bunch 15 of studies, put them together. Yes, 16 that's true. 17 Q. So you believe that they are 18 consistent? 19 A. The meta-analyses? 20 Q. Yes. 21 MS. CURRY: Object to the 22 form. 23 THE WITNESS: The 24 meta-analyses -- if -- if I -- I</p>

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<p>1 want to make sure it's okay for me</p> <p>2 to expound on this.</p> <p>3 The meta-analyses combine</p> <p>4 both case-control and cohort</p> <p>5 studies and come to the conclusion</p> <p>6 that the case-control studies that</p> <p>7 they are including, find a</p> <p>8 difference, and usually typically</p> <p>9 described as moderate -- a -- a</p> <p>10 weak difference. And cohort</p> <p>11 studies which show no difference.</p> <p>12 And they combine them together.</p> <p>13 The few that have kept them</p> <p>14 separate and look separately have</p> <p>15 shown no difference in the cohort</p> <p>16 studies they've put together and a</p> <p>17 difference in the case-control</p> <p>18 studies.</p> <p>19 BY MS. GARBER:</p> <p>20 Q. Doctor, the authors here in</p> <p>21 the Health Canada have concluded that the</p> <p>22 meta-analyses are consistent. Do you</p> <p>23 agree with that?</p> <p>24 A. Yes. That's what they are</p>	<p>1 just get into this. I'm half into</p> <p>2 it.</p> <p>3 I'll mark the Taher 2018</p> <p>4 meta-analyses as Exhibit 12.</p> <p>5 (Document marked for</p> <p>6 identification as Exhibit</p> <p>7 Holcomb-12.)</p> <p>8 BY MS. GARBER:</p> <p>9 Q. And turning -- as to the</p> <p>10 topic of consistency, turning over to</p> <p>11 Page 49, under the conclusion, it</p> <p>12 reads --</p> <p>13 A. Page 49, I'm sorry.</p> <p>14 Q. -- "Consistent with previous</p> <p>15 evaluations, the IARC in 2010 and</p> <p>16 subsequent evaluations by individual</p> <p>17 investigators, the present comprehensive</p> <p>18 evaluation of all currently available</p> <p>19 relevant data indicates that perineal</p> <p>20 exposure to talcum powder is a possible</p> <p>21 cause of ovarian cancer in humans."</p> <p>22 First, did I read that</p> <p>23 correctly?</p> <p>24 A. You did read it correctly.</p>
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<p>1 concluding.</p> <p>2 Q. Do you agree with the study</p> <p>3 authors?</p> <p>4 MS. CURRY: Object to the</p> <p>5 form.</p> <p>6 THE WITNESS: Again --</p> <p>7 BY MS. GARBER:</p> <p>8 Q. Do you think they're -- do</p> <p>9 you think they are consistent or</p> <p>10 inconsistent?</p> <p>11 A. No. Meta-analyses are</p> <p>12 consistent.</p> <p>13 Q. Thank you.</p> <p>14 You reviewed the Taher</p> <p>15 paper?</p> <p>16 A. The what?</p> <p>17 Q. The Taher, T-A-H-E-R.</p> <p>18 A. Taher --</p> <p>19 Q. Yes.</p> <p>20 A. -- yes. Mm-hmm.</p> <p>21 MS. CURRY: Ms. Garber,</p> <p>22 whenever it's appropriate to take</p> <p>23 a lunch break?</p> <p>24 MS. GARBER: Okay. Let me</p>	<p>1 Q. And this indicates that the</p> <p>2 data are consistent --</p> <p>3 MS. CURRY: Object to the</p> <p>4 form.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. -- correct?</p> <p>7 A. It's consistent with IARC,</p> <p>8 yes.</p> <p>9 Q. Does it limit it to IARC,</p> <p>10 that statement?</p> <p>11 A. IARC is basically using the</p> <p>12 subsequent evaluations and so consistency</p> <p>13 would not be surprising when you're</p> <p>14 rechunking the same data over and over.</p> <p>15 So when you say that the --</p> <p>16 the individual investigators are</p> <p>17 consistent with IARC, but IARC uses</p> <p>18 individual investigators. When you have</p> <p>19 individual investigator's data then put</p> <p>20 together into a pooled analysis, you</p> <p>21 would expect consistency. When you --</p> <p>22 when you do meta-analysis that then take</p> <p>23 those same individual studies and put all</p> <p>24 the patients together, you would expect</p>

<p style="text-align: right;">Page 226</p> <p>1 consistency.</p> <p>2 The consistency in that</p> <p>3 sense, you know, really doesn't surprise</p> <p>4 me. If you take a bunch of studies that</p> <p>5 have the same risk of bias -- and even if</p> <p>6 the level of bias is the same, for</p> <p>7 example, if you're doing a case-control</p> <p>8 study in Boston, I wouldn't expect women</p> <p>9 in Massachusetts to be more prone or less</p> <p>10 prone to recall bias than a group of</p> <p>11 women in California.</p> <p>12 So I wouldn't be surprised</p> <p>13 to see, especially since they are so</p> <p>14 small, similar risk. And that's why I</p> <p>15 have a problem with the commenters in</p> <p>16 Nature to say you don't need these, these</p> <p>17 safe ways, because as long as they keep</p> <p>18 going in the same direction, we should be</p> <p>19 assuming it's real.</p> <p>20 But what if all the studies</p> <p>21 have the same problem, and that problem</p> <p>22 takes your risk estimate in the same</p> <p>23 direction? And that's the problem I have</p> <p>24 with just getting away with intervals,</p>	<p style="text-align: right;">Page 228</p> <p>1 those contained within IARC's or are</p> <p>2 those new studies?</p> <p>3 A. Well, interesting, IARC came</p> <p>4 to the conclusion that it's a possible</p> <p>5 carcinogen --</p> <p>6 Q. Doctor, what was my</p> <p>7 question?</p> <p>8 A. I'm going to answer. And</p> <p>9 this time, you asked me a question, I'm</p> <p>10 going to give you an answer. And --</p> <p>11 Q. Are you going to give me an</p> <p>12 answer that's --</p> <p>13 A. I'm going to give you a very</p> <p>14 direct answer to the question you</p> <p>15 asked --</p> <p>16 Q. That would be great.</p> <p>17 A. -- and if you would give me</p> <p>18 a chance, you would have found out that</p> <p>19 it would have been that case.</p> <p>20 So IARC 2010 looks at talc.</p> <p>21 They have one prospective trial included</p> <p>22 in that.</p> <p>23 In the coming years, you</p> <p>24 asked, are there subsequent data that was</p>
<p style="text-align: right;">Page 227</p> <p>1 then, in any case.</p> <p>2 So yes, IARC reviewed the</p> <p>3 individual investigator's data and came</p> <p>4 to this conclusion, and they are coming</p> <p>5 to the same conclusion, largely looking</p> <p>6 at the same data.</p> <p>7 Taher's meta-analysis is</p> <p>8 basically Berge's, it's basically</p> <p>9 Penninkilampi. There's no new data in</p> <p>10 there. It's reurning the same data.</p> <p>11 So to say that this is</p> <p>12 consistent with this and this is</p> <p>13 consistent with this, and you're all</p> <p>14 looking at the same studies, to do the</p> <p>15 same thing over and over and expect a</p> <p>16 different outcome is insanity.</p> <p>17 Q. Are you done?</p> <p>18 A. Yes.</p> <p>19 Q. What was my question?</p> <p>20 A. Did I agree with this?</p> <p>21 Q. Okay. That wasn't my</p> <p>22 question.</p> <p>23 The subsequent evaluations</p> <p>24 by individual investigators, are -- are</p>	<p style="text-align: right;">Page 229</p> <p>1 added to it. Well, IARC comes to this</p> <p>2 conclusion, in the subsequent years</p> <p>3 there's three more prospective studies</p> <p>4 that are not included in IARC that come</p> <p>5 to the conclusion that there is no</p> <p>6 association.</p> <p>7 And there are a number of</p> <p>8 pooled analysis, and -- and meta-analysis</p> <p>9 that keeps reurning the same old data</p> <p>10 that's in IARC.</p> <p>11 So there's a number of</p> <p>12 studies that have come out since IARC. I</p> <p>13 would say the balance of which have been</p> <p>14 stronger design studies that have shown</p> <p>15 no increased risk. And I'll be curious</p> <p>16 to see what IARC thinks the next time</p> <p>17 they sit down and pool all this together.</p> <p>18 Q. Doctor, Endnote 3 and 5 and</p> <p>19 69 do not cite to IARC. Are you aware of</p> <p>20 that?</p> <p>21 A. 3, 5 and 69 in IARC?</p> <p>22 Q. Yeah. I'll represent to you</p> <p>23 they're Berge, Penninkilampi and --</p> <p>24 A. Right, so what are Berge and</p>

<p style="text-align: right;">Page 230</p> <p>1 Penninkilampi, what are the studies in 2 those? 3 Q. Those are just rechurning in 4 your opinion. Those are just -- 5 A. I'm saying -- 6 Q. -- those studies are 7 invaluable because they are just 8 rechurning the prior meta-analyses. 9 Is that your opinion? 10 MS. CURRY: Object to the 11 form. 12 THE WITNESS: I'm saying 13 that there's very little 14 difference between Taher's 15 meta-analysis and Penninkilampi's 16 meta-analysis, and Berge's 17 meta-analysis. 18 The overlap in those studies 19 is great. There's very -- that's 20 not much difference between those. 21 They have very similar number of 22 studies. And so yes, it is a 23 rechurning of the same data. 24 BY MS. GARBER:</p>	<p style="text-align: right;">Page 232</p> <p>1 fact, you'll see that Purdie and Green, 2 same dataset. You'll see that Wu 2015 3 includes Wu 2009. You'll see that Cramer 4 2016 includes Cramer 2009. 5 So is it surprising that 6 2009 Cramer and 2015 Cramer looks the 7 same when the -- half of 2016 is 2009? 8 Q. Shall we throw out -- 9 A. It is rechurning -- 10 Q. Shall we throw out the 11 meta-analysis because they are 12 rechurning? 13 A. I'm saying all -- no. I'm 14 saying that meta -- 15 MS. CURRY: Object to the 16 form. 17 We have to do this in -- in 18 question and answer or you're 19 going to drive the court reporter 20 crazy. 21 THE WITNESS: I apologize. 22 MS. CURRY: Let her get her 23 full question out, give me a 24 second if I need to make an</p>
<p style="text-align: right;">Page 231</p> <p>1 Q. That doesn't provide you 2 with support that those data are robust? 3 A. If you -- 4 MS. CURRY: Object to the 5 form. 6 THE WITNESS: No. If you -- 7 if you -- 8 BY MS. GARBER: 9 Q. Different authors doing -- 10 picking basically different studies -- 11 A. Different studies? That's 12 what I'm saying, they are not different 13 studies. 14 Q. Okay. 15 A. They're talking the same 16 studies. 17 Q. I'm talking about the body 18 of meta-analyses. 19 A. I'm telling you that 20 Penninkilampi, and Berge, and Taher, if 21 you look at the overlap in the studies 22 that they are putting together, if you 23 look at my case-control list, and it may 24 look like there's so many studies, but in</p>	<p style="text-align: right;">Page 233</p> <p>1 objection, and then please let him 2 finish his answer. 3 BY MS. GARBER: 4 Q. Doctor, should we throw out 5 the meta-analyses because the subsequent 6 meta-analyses are just rechurning of 7 prior meta-analyses? 8 A. No, what I'm saying is don't 9 say Penninkilampi, Berge, and the -- 10 don't count three -- in the same way that 11 in my list of case-control studies, you 12 shouldn't consider Purdie and Green 13 different studies. Even though I have a 14 list there just to show that I was being 15 comprehensive. It's the same dataset. 16 So my point is, if you're 17 look -- if there's a lot of overlap, you 18 shouldn't then look and say, well, this 19 is consistent, because what Bradford Hill 20 meant by consistency was different 21 populations in different places at 22 different times. That's not the spirit 23 of taking the same patients from the same 24 times in the same places and looking at</p>

<p style="text-align: right;">Page 234</p> <p>1 them over and over again.</p> <p>2 Q. There's not 100 percent</p> <p>3 overlap in any of the studies, is there?</p> <p>4 A. Not 100 percent. But the</p> <p>5 majority of them. The majority of Berge</p> <p>6 is in Taher, and the majority of</p> <p>7 Penninkilampi is in Taher.</p> <p>8 You do the math and tell me</p> <p>9 what percentage is not there. It's the</p> <p>10 same. It's -- the majority, it's the</p> <p>11 same studies.</p> <p>12 Q. In the case-control studies</p> <p>13 is the majority -- are the majority of</p> <p>14 those studies overlap of the prior</p> <p>15 studies?</p> <p>16 MS. CURRY: Object to the</p> <p>17 form.</p> <p>18 THE WITNESS: I don't</p> <p>19 understand what you mean.</p> <p>20 BY MS. GARBER:</p> <p>21 Q. Well, you seem to take issue</p> <p>22 with -- that there's overlap? So</p> <p>23 let's --</p> <p>24 A. There's some.</p>	<p style="text-align: right;">Page 236</p> <p>1 will say that, yes, when you don't have</p> <p>2 overlap you get a 50/50. You get a 50/50</p> <p>3 significance, 50/50 non-significance.</p> <p>4 If you keep churning the</p> <p>5 same data over, you would be surprised to</p> <p>6 see it drop out of significance. And in</p> <p>7 fact, when you look at Berge, which is</p> <p>8 really the only meta-analysis I -- I</p> <p>9 wouldn't say it's the only meta-analysis</p> <p>10 that I respect.</p> <p>11 But one of the rules of</p> <p>12 meta-analysis is that you have to do a</p> <p>13 test for heterogeneity before you just</p> <p>14 decide to throw these studies together</p> <p>15 and it's valid to do so.</p> <p>16 And I look at Penninkilampi.</p> <p>17 And Penninkilampi says, well, I did a</p> <p>18 study for heterogeneity. And I looked</p> <p>19 at, make sure they use condoms and</p> <p>20 diaphragms and perineal dusting. And</p> <p>21 that's what he's looking for</p> <p>22 heterogeneity.</p> <p>23 But the biggest form of</p> <p>24 heterogeneity, the one thing that they</p>
<p style="text-align: right;">Page 235</p> <p>1 Q. Let's talk about the</p> <p>2 case-control studies.</p> <p>3 A. Sure.</p> <p>4 Q. Do the body of case-control</p> <p>5 studies provide 100 percent overlap of</p> <p>6 data?</p> <p>7 MS. CURRY: Object to the</p> <p>8 form.</p> <p>9 THE WITNESS: No.</p> <p>10 BY MS. GARBER:</p> <p>11 Q. And what's the percentage of</p> <p>12 overlap in your opinion?</p> <p>13 MS. CURRY: Object to the</p> <p>14 form.</p> <p>15 THE WITNESS: I just</p> <p>16 mentioned the studies on my list</p> <p>17 that were overlap.</p> <p>18 BY MS. GARBER:</p> <p>19 Q. Okay. And it's limited to</p> <p>20 those studies, correct?</p> <p>21 A. And you have -- irrespective</p> <p>22 of what the doctors say about throwing</p> <p>23 away confidence intervals, which is not</p> <p>24 the majority of people in medicine, I</p>	<p style="text-align: right;">Page 237</p> <p>1 don't mention, is the first thing Berge</p> <p>2 did. What if you looked at the</p> <p>3 case-control studies and the cohort</p> <p>4 studies? Should these things even be</p> <p>5 mixed together.</p> <p>6 And Berge says, they</p> <p>7 shouldn't. There's too much</p> <p>8 heterogeneity. But they go ahead and do</p> <p>9 it anyway.</p> <p>10 Q. The Penninkilampi authors</p> <p>11 looked at the issue of heterogeneity and</p> <p>12 found --</p> <p>13 A. Through case-control -- I'm</p> <p>14 sorry.</p> <p>15 MS. CURRY: You have to let</p> <p>16 her finish her question.</p> <p>17 THE WITNESS: I'm sorry.</p> <p>18 BY MS. GARBER:</p> <p>19 Q. The Penninkilampi authors</p> <p>20 looked at the issue of heterogeneity and</p> <p>21 concluded that there was not</p> <p>22 heterogeneity with regard to talc</p> <p>23 exposure, true?</p> <p>24 MS. CURRY: Object to the</p>

<p style="text-align: right;">Page 238</p> <p>1 form.</p> <p>2 THE WITNESS: Looking at a</p> <p>3 very similar group of studies as</p> <p>4 Berge, and somehow Berge came up</p> <p>5 with heterogeneity and mentions</p> <p>6 the heterogeneity between study</p> <p>7 design, and Penninkilampi, if you</p> <p>8 look at what they looked at as far</p> <p>9 as heterogeneity, they never say</p> <p>10 that they saw a lack of</p> <p>11 heterogeneity between cohort</p> <p>12 studies and case-control studies.</p> <p>13 And how could you not find</p> <p>14 heterogeneity when you have none</p> <p>15 of the cohort studies showing a</p> <p>16 significant impact?</p> <p>17 BY MS. GARBER:</p> <p>18 Q. Are you an advocate for the</p> <p>19 defense?</p> <p>20 MS. CURRY: Object to the</p> <p>21 form.</p> <p>22 THE WITNESS: I'm an</p> <p>23 advocate for the truth. But I'm</p> <p>24 the biggest advocate for my</p>	<p style="text-align: right;">Page 240</p> <p>1 Q. Very well.</p> <p>2 In the case-control studies</p> <p>3 that are here published in Table 1, do</p> <p>4 those studies involve study participants</p> <p>5 of different ethnicities?</p> <p>6 A. Yes.</p> <p>7 Q. And do those studies involve</p> <p>8 case-control studies that have occurred</p> <p>9 over decades, in other words from 1982 to</p> <p>10 recently?</p> <p>11 A. Yes.</p> <p>12 Q. Okay. And while some of</p> <p>13 them are in the United States, some are</p> <p>14 in foreign countries?</p> <p>15 A. Majority in the United</p> <p>16 States.</p> <p>17 Q. But some are in foreign</p> <p>18 countries?</p> <p>19 A. A few.</p> <p>20 Q. Yeah. And --</p> <p>21 MR. MIZGALA: Could you</p> <p>22 raise your voice just a little</p> <p>23 bit?</p> <p>24 MS. GARBER: Yeah.</p>
<p style="text-align: right;">Page 239</p> <p>1 patients. But that's a whole</p> <p>2 other story.</p> <p>3 BY MS. GARBER:</p> <p>4 Q. You are an advocate for your</p> <p>5 patients?</p> <p>6 A. I am.</p> <p>7 Q. Do you advise them that it's</p> <p>8 safe to put asbestos on their genitals?</p> <p>9 A. No, I don't.</p> <p>10 MS. CURRY: Is it a good</p> <p>11 time -- good breaking point for</p> <p>12 you?</p> <p>13 MS. GARBER: Sure.</p> <p>14 THE VIDEOGRAPHER: Off the</p> <p>15 record, right? The time is</p> <p>16 1:07 p.m. Off the record.</p> <p>17 (Lunch break.)</p> <p>18 THE VIDEOGRAPHER: We are</p> <p>19 back on the record. The time is</p> <p>20 2:04 p.m.</p> <p>21 BY MS. GARBER:</p> <p>22 Q. Good afternoon, Doctor. Did</p> <p>23 you have a good lunch?</p> <p>24 A. Yes, I did. Thank you.</p>	<p style="text-align: right;">Page 241</p> <p>1 MR. MIZGALA: Thank you.</p> <p>2 BY MS. GARBER:</p> <p>3 Q. And with regard to the</p> <p>4 case-control cohorts and meta-analyses,</p> <p>5 the published literature with regard to</p> <p>6 talc and ovarian cancer contained</p> <p>7 different study designs, can we agree</p> <p>8 with that?</p> <p>9 A. Yes.</p> <p>10 Q. And even within the</p> <p>11 case-control studies, those involve</p> <p>12 different study designs generally?</p> <p>13 MS. CURRY: Object to the</p> <p>14 form.</p> <p>15 THE WITNESS: No. The</p> <p>16 case-control is a study design.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. Okay. I'll just strike</p> <p>19 that.</p> <p>20 All right. Is it your</p> <p>21 opinion that unless a given study is</p> <p>22 statistically significant and with an</p> <p>23 odds ratio greater or equal to 2.0, that</p> <p>24 the findings are attributable to random</p>

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<p>1 chance?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: No.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. That's not your opinion?</p> <p>7 A. No.</p> <p>8 Q. Who is Melissa Frey?</p> <p>9 A. She is one of my partners at</p> <p>10 Cornell. She is a GYN oncologist.</p> <p>11 Q. Do you respect her as a</p> <p>12 clinician?</p> <p>13 MS. CURRY: Object to the</p> <p>14 form.</p> <p>15 THE WITNESS: Yes, I do.</p> <p>16 BY MS. GARBER:</p> <p>17 Q. Do you respect her</p> <p>18 professional judgment?</p> <p>19 A. Yes.</p> <p>20 Q. You indicate in your expert</p> <p>21 report that use of hormone replacement</p> <p>22 therapy, or can we call that HRT?</p> <p>23 A. It depends what you're</p> <p>24 talking about. If you're talking about a</p>	<p>1 MS. CURRY: Object to the</p> <p>2 form.</p> <p>3 THE WITNESS: Which type of</p> <p>4 cancer are you referring to?</p> <p>5 BY MS. GARBER:</p> <p>6 Q. We'll start with breast</p> <p>7 cancer.</p> <p>8 A. I don't know the odds ratio</p> <p>9 exactly, no.</p> <p>10 Q. Doctor, if I represent to</p> <p>11 you that the odds ratio for Prempro and</p> <p>12 breast cancer is a 1.24, you don't have</p> <p>13 any reason to dispute that, do you?</p> <p>14 MS. CURRY: Object to the</p> <p>15 form.</p> <p>16 THE WITNESS: I -- I don't</p> <p>17 know the odds ratio.</p> <p>18 BY MS. GARBER:</p> <p>19 Q. Do you know, Doctor, or are</p> <p>20 you aware that Prempro carries a black</p> <p>21 box warning for a risk of breast cancer</p> <p>22 based on an odds ratio of 1.24?</p> <p>23 A. For all patients?</p> <p>24 Q. Yes.</p>
Page 243	Page 245
<p>1 combination single -- I -- I assume we're</p> <p>2 going to specify what you're referring</p> <p>3 to.</p> <p>4 Q. Okay. For purposes of your</p> <p>5 expert report with regard to risk factors</p> <p>6 and HRT, what are you referencing?</p> <p>7 A. Most of the studies that</p> <p>8 show a significant increased risk is with</p> <p>9 estrogen replacement alone.</p> <p>10 Q. Okay. And you believe that</p> <p>11 HRT is a risk factor for ovarian cancer,</p> <p>12 or do you limit that to estrogen alone?</p> <p>13 A. I would limit it to estrogen</p> <p>14 alone.</p> <p>15 Q. Okay. In caring for women</p> <p>16 who use HRT in connection with menopause,</p> <p>17 have you had the occasion to prescribe or</p> <p>18 care for a woman using HRT Prempro?</p> <p>19 A. Yes.</p> <p>20 Q. Did you ever prescribe it?</p> <p>21 A. Yes, I have.</p> <p>22 Q. Are you aware that the --</p> <p>23 what the odds ratio or the risks are</p> <p>24 associated with that drug for cancer?</p>	<p>1 A. No, I wasn't aware of that.</p> <p>2 Q. No -- for menopausal women.</p> <p>3 Are you aware of that?</p> <p>4 A. No.</p> <p>5 Q. Do you believe that the risk</p> <p>6 associated with talc and ovarian cancer</p> <p>7 is generally 1.3 to 1.4?</p> <p>8 MS. CURRY: Object to the</p> <p>9 form.</p> <p>10 THE WITNESS: I believe in</p> <p>11 my report I say it's between 1.2</p> <p>12 and 1.6. So I'll stick with that.</p> <p>13 BY MS. GARBER:</p> <p>14 Q. Okay. And so that would be</p> <p>15 a 20 to 60 percent increased risk of</p> <p>16 ovarian cancer associated with talcum</p> <p>17 powder products, right?</p> <p>18 A. In the studies that show a</p> <p>19 risk increase at all, yes.</p> <p>20 Q. And you believe that that</p> <p>21 odds ratio or relative risk is low?</p> <p>22 MS. CURRY: Object to the</p> <p>23 form.</p> <p>24 THE WITNESS: Yes.</p>

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<p>1 BY MS. GARBER:</p> <p>2 Q. And do you, therefore, feel</p> <p>3 that it does not meet sufficiency of a</p> <p>4 magnitude of a risk to be reliable under</p> <p>5 the Bradford Hill factors?</p> <p>6 A. No --</p> <p>7 MS. CURRY: Object to the</p> <p>8 form.</p> <p>9 THE WITNESS: -- that's not</p> <p>10 my opinion.</p> <p>11 BY MS. GARBER:</p> <p>12 Q. Okay. Do you have any</p> <p>13 opinion as to the magnitude of the risk</p> <p>14 or strength of the association between</p> <p>15 the talc literature and ovarian cancer?</p> <p>16 A. Please repeat the question.</p> <p>17 Q. Sure. Do you have an</p> <p>18 opinion as to the strength of the</p> <p>19 association or magnitude of the risk as</p> <p>20 it pertains to the talc ovarian cancer</p> <p>21 literature?</p> <p>22 MS. CURRY: Object to the</p> <p>23 form.</p> <p>24 THE WITNESS: It's generally</p>	<p>1 prevalence is in the United States for</p> <p>2 use of talcum powder products?</p> <p>3 MS. CURRY: Object to the</p> <p>4 form.</p> <p>5 THE WITNESS: The different</p> <p>6 studies that I reviewed had</p> <p>7 different -- different prevalence</p> <p>8 of use. And I think it's somewhat</p> <p>9 related to the ethnic group. For</p> <p>10 example, the group that has</p> <p>11 probably one of the lowest rates</p> <p>12 of ovarian cancer is African</p> <p>13 Americans, and historically they</p> <p>14 have one of the highest uses of</p> <p>15 talc.</p> <p>16 But for example, in Gertig</p> <p>17 at the -- at that time of that</p> <p>18 study I believe it was about</p> <p>19 42 percent of women reported using</p> <p>20 it with about 14 percent using it</p> <p>21 daily.</p> <p>22 BY MS. GARBER:</p> <p>23 Q. You've seen literature that</p> <p>24 cites it as high as 50 percent in the</p>
Page 247	Page 249
<p>1 referred to -- it's generally</p> <p>2 referred to as modest. In some</p> <p>3 cases weak. And I would -- I</p> <p>4 would agree with that.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. You are aware of</p> <p>7 peer-reviewed and published studies that</p> <p>8 hold the opposite opinion to yours,</p> <p>9 right, that -- that the magnitude of</p> <p>10 risk -- magnitude of the risk is</p> <p>11 sufficient to meet with the Bradford Hill</p> <p>12 criteria as to that issue?</p> <p>13 A. I agree with the statement</p> <p>14 that -- I don't agree with the statement</p> <p>15 that I've seen literature that described</p> <p>16 the association as anything but modest</p> <p>17 even in the -- by the authors who hold a</p> <p>18 different opinion.</p> <p>19 Q. Do you know what IARC says</p> <p>20 as to the magnitude of the risk in the</p> <p>21 2010 monograph?</p> <p>22 A. I'd have to review it again</p> <p>23 to say specifically.</p> <p>24 Q. Do you know what the</p>	<p>1 United States, right?</p> <p>2 A. Yes.</p> <p>3 Q. Do you agree with the Narod</p> <p>4 author in 2016 that it's right to be</p> <p>5 concerned over carcinogenicity of talc</p> <p>6 even if a risk ratio is below 50 percent?</p> <p>7 MS. CURRY: Object to the</p> <p>8 form.</p> <p>9 THE WITNESS: No. I think</p> <p>10 that statement taken in isolation,</p> <p>11 I would not agree with that.</p> <p>12 BY MS. GARBER:</p> <p>13 Q. You agree that his opinion</p> <p>14 has been published in Gynecologic</p> <p>15 Oncology, correct?</p> <p>16 A. I agree, yes.</p> <p>17 Q. Do you have an opinion as to</p> <p>18 when subgroup analysis for epithelial</p> <p>19 ovarian cancer histology type is</p> <p>20 performed in the studies that serous has</p> <p>21 the strongest association?</p> <p>22 MS. CURRY: Object to the</p> <p>23 form.</p> <p>24 THE WITNESS: I do. It's</p>

<p style="text-align: right;">Page 250</p> <p>1 not surprising, because it's the</p> <p>2 most predominate cell type.</p> <p>3 BY MS. GARBER:</p> <p>4 Q. Do you agree if women tend</p> <p>5 to use talc daily, as you indicate in</p> <p>6 your report, that the use becomes</p> <p>7 habitual rather than memorable?</p> <p>8 A. Habitual rather than</p> <p>9 memorable?</p> <p>10 Q. Mm-hmm.</p> <p>11 MS. CURRY: Object to the</p> <p>12 form.</p> <p>13 BY MS. GARBER:</p> <p>14 Q. Do you understand the nature</p> <p>15 of my question?</p> <p>16 A. No, I guess I have to think</p> <p>17 about that.</p> <p>18 Q. Let me see if I can help.</p> <p>19 So if, let's say, I have grown up</p> <p>20 brushing my teeth every single day twice</p> <p>21 a day with Crest toothpaste, and somebody</p> <p>22 wants to know what I've done over my</p> <p>23 lifetime, I don't have to think about,</p> <p>24 oh, did I use Crest every single day,</p>	<p style="text-align: right;">Page 252</p> <p>1 including the desirability of the</p> <p>2 exposure.</p> <p>3 But -- so I think all</p> <p>4 behaviors are subject to changes</p> <p>5 in recall based on the specifics.</p> <p>6 BY MS. GARBER:</p> <p>7 Q. Do you believe that the</p> <p>8 case-control studies are unreliable for</p> <p>9 assessment of risk for talcum powder</p> <p>10 exposure in ovarian cancer based on</p> <p>11 recall bias?</p> <p>12 MS. CURRY: Object to the</p> <p>13 form.</p> <p>14 THE WITNESS: I think all</p> <p>15 case-control studies have a risk</p> <p>16 of recall bias, not just limited</p> <p>17 to ovarian cancer studies.</p> <p>18 BY MS. GARBER:</p> <p>19 Q. I understand they're at risk</p> <p>20 for that. Is it your opinion that the</p> <p>21 case-control studies have had recall bias</p> <p>22 at play to explain that increase in risk?</p> <p>23 A. I think that's one of the</p> <p>24 possible explanations, yes.</p>
<p style="text-align: right;">Page 251</p> <p>1 twice a day? It's habitual because I've</p> <p>2 done it my whole life, rather than if I</p> <p>3 used one product one day and another</p> <p>4 product the other day and, you know, it</p> <p>5 was not something that was part of my</p> <p>6 ADLs. You understand what ADLs are, of</p> <p>7 course.</p> <p>8 A. I do.</p> <p>9 Q. Yeah. Activities of daily</p> <p>10 living. So if it was not part of an</p> <p>11 activity of daily living, it might be</p> <p>12 more memorable.</p> <p>13 Do you understand now?</p> <p>14 MS. CURRY: Object to the</p> <p>15 form.</p> <p>16 THE WITNESS: I -- honestly,</p> <p>17 I think my understanding of this</p> <p>18 isn't that certain things are</p> <p>19 memorable and certain things are</p> <p>20 habitual. It's that activities</p> <p>21 can be impacted by alterations in</p> <p>22 your recall of those things by a</p> <p>23 number of factors, which I</p> <p>24 outlined in my report, one</p>	<p style="text-align: right;">Page 253</p> <p>1 Q. Possible, not probable?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: I would argue</p> <p>5 probable.</p> <p>6 BY MS. GARBER:</p> <p>7 Q. Okay. I got you to change</p> <p>8 it to a probable?</p> <p>9 A. Yes.</p> <p>10 Q. Are you aware of literature</p> <p>11 that says it's not likely at play to</p> <p>12 explain the increased odds ratios or</p> <p>13 relative risks?</p> <p>14 A. I have read opinions about</p> <p>15 it, but literature, no.</p> <p>16 Q. Okay. Are you aware of</p> <p>17 authors that have studied the topic of</p> <p>18 talcum powder products and risk of</p> <p>19 ovarian cancer who have concluded that</p> <p>20 recall bias is not at play?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: Please repeat</p> <p>24 the question again.</p>

<p style="text-align: right;">Page 254</p> <p>1 BY MS. GARBER: 2 Q. Sure. Have you -- have you 3 read peer-reviewed published studies 4 where the authors were studying talcum 5 powder products and the risk of ovarian 6 cancer and have concluded that recall 7 bias was not at play as increasing the 8 risk for ovarian cancer? 9 MS. CURRY: Object to the 10 form. 11 THE WITNESS: No. In fact, 12 the only time I remember a study 13 really getting into this where 14 they had proof was Schildkraut 15 2016, where there was a pretty 16 significant increase and people 17 remembering being exposed to talc 18 after 2014 compared to before 19 2014. 20 And I can't think of any 21 other explanation for that 22 difference other than recall bias. 23 BY MS. GARBER: 24 Q. Well, we'll get to that</p>	<p style="text-align: right;">Page 256</p> <p>1 Here's a screen. The doctor has a 2 screen. 3 BY MS. GARBER: 4 Q. Doctor, at Page 464 of this 5 paper, if you can turn to that, the last 6 page of the study. And on the left-hand 7 column, about halfway down the paragraph, 8 it begins "recall." 9 Do you see where I am? If 10 you look -- if you look here, Doctor. 11 See? 12 A. Yeah. 13 Q. Okay. It reads, "Recall 14 bias has also been implicated as a 15 limitation in studies of talc and ovarian 16 cancer. However, findings in a 17 prospective" -- "in a prospective study, 18 the Nurses' Health Study, in which 19 exposure data were collected prior to 20 diagnosis and hence free of recall bias 21 were similar to the present finding for 22 our talc use and serous invasive ovarian 23 cancer. 24 "It has also been suggested</p>
<p style="text-align: right;">Page 255</p> <p>1 paper. And I appreciate that. But you 2 just used a term, "proof." What do you 3 mean by that? 4 A. I don't know exactly what I 5 said. Can you repeat my statement? 6 Q. You said, "I remember a 7 study really getting into this where they 8 had proof, was Schildkraut 2016, where 9 there were pretty significant" -- 10 A. Let me change the word from 11 "proof" to "evidence." 12 Q. Okay. Let's look at some 13 studies. 14 (Document marked for 15 identification as Exhibit 16 Holcomb-13.) 17 BY MS. GARBER: 18 Q. I'm going to mark as 19 Exhibit 13 a paper by Mills, et al. This 20 is one that you reviewed, right? 21 A. Yes. 22 MS. GARBER: Sorry. I 23 didn't -- I didn't make enough 24 copies for you guys. I apologize.</p>	<p style="text-align: right;">Page 257</p> <p>1 that use of talc is habitual versus 2 memorable and not likely to be subject to 3 recall bias." 4 So, Doctor, my question is, 5 this is a peer-reviewed study author who 6 is suggesting that the studies are 7 similar between case-control and a cohort 8 and suggesting that recall bias is not at 9 play because the use is habitual versus 10 memorable. 11 Do you agree? 12 MS. CURRY: Object to the 13 form. 14 THE WITNESS: No. Can I 15 explain why? 16 BY MS. GARBER: 17 Q. I don't -- I don't mean 18 agree with the author. Do you agree with 19 my assessment of what the authors are 20 saying? 21 MS. CURRY: Object to the 22 form. 23 THE WITNESS: That's true 24 what the authors are saying.</p>

<p style="text-align: right;">Page 258</p> <p>1 BY MS. GARBER: 2 Q. Okay. And you disagree that 3 recall bias is not at play because the 4 use is habitual rather than memorable? 5 A. No. 6 Q. You don't agree with that? 7 A. If I can explain my 8 reasoning, or should I leave this at yes 9 or no? 10 Q. Just I don't need to know 11 why. 12 A. You don't need to know why. 13 Q. No, I want to ask you a few 14 more questions and then I'll circle back 15 to that -- 16 A. Sure. 17 Q. -- because there are a few 18 other papers that I want to get to before 19 we understand that. 20 Doctor, if you can go back 21 to the Health Canada, which we marked as 22 Exhibit 11. And if you could turn to 23 Page 28. Under -- do you see where I am? 24 Under the 6.4, third paragraph down.</p>	<p style="text-align: right;">Page 260</p> <p>1 form. 2 THE WITNESS: One, the first 3 statement, "The recall bias is 4 unlikely to be an important source 5 of bias," is now referring to an 6 opinion of Narod. Narod's 2016, I 7 told you was that not -- that 8 wasn't based on data. So there's 9 an echo chamber thing. 10 And then the positive 11 association is strongest for 12 serous histologic type, if you 13 have a higher prevalence of a 14 type, you would expect recall bias 15 to be more commonly seen with 16 that, because when you have rarer, 17 smaller numbers, you may not reach 18 an association high enough to show 19 the increased risk there. 20 So it's not surprising to me 21 if there was going to be a 22 consistent cell type that you saw 23 this increased risk with, it would 24 be with serous, because it is the</p>
<p style="text-align: right;">Page 259</p> <p>1 Do you see where I am? It 2 says, "In studies?" 3 A. 28. Yes. Yes. Okay. 4 Q. It says, "In studies where 5 the exposure is simple, e.g., never 6 versus ever use, recall bias is unlikely 7 to be an important source of bias." And 8 then it cites to Narod 2016. 9 "The positive association is 10 strongest for serous histologic type," 11 and then it cites to Berge 2018 and Taher 12 2018. "Findings that the association may 13 vary by histologic type detracts from the 14 hypothesis of report bias as this type of 15 bias would likely operate for all 16 histologic types." 17 Did I read that correctly? 18 A. You did. 19 Q. And so what the authors 20 there are saying is if recall bias was at 21 play here, you would expect to see an 22 increase in all of the histologic types, 23 not just certain ones, correct? 24 MS. CURRY: Object to the</p>	<p style="text-align: right;">Page 261</p> <p>1 predominate cell type. 2 BY MS. GARBER: 3 Q. You disagree with the study 4 authors of Health Canada wherein they are 5 stating at Page 28, that recall bias is 6 not likely at play -- 7 A. They are -- yeah, I'm sorry. 8 Q. -- not likely at play for 9 the increased risk amongst the studies, 10 correct? 11 A. I do because if they would 12 cite a study where they can show it 13 wasn't at play. See, I can cite a study 14 where I believe it was at play when I 15 cite Schildkraut. 16 When they cite a study that 17 shows it's not at play, they cite an 18 opinion piece by Narod. There's a 19 difference. 20 Q. Well, and they also cite the 21 Berge and Taher papers, don't they? 22 A. For a different period -- 23 for a different point. 24 Q. Is there any metric,</p>

<p style="text-align: right;">Page 262</p> <p>1 objective metric to measure recall bias 2 in a given study? In other words, for 3 those who don't typically read 4 epidemiological literature, there -- 5 there is not an objective measurement 6 that can be -- 7 A. I can think of one. 8 MS. CURRY: Object to the 9 form. 10 THE WITNESS: If you have a 11 situation where there is a -- an 12 increase in familiarity with a 13 topic that happens after a certain 14 time point and you look at the 15 association before and after this 16 is widely known and show that 17 there's a difference, I think that 18 that's a fair metric -- it puts 19 the onus to figure out, well, why 20 all of a sudden after the time 21 that it's a well-known entity, why 22 do more people remember using it 23 who have cancer compared to the 24 controls.</p>	<p style="text-align: right;">Page 264</p> <p>1 isn't it? I mean, how does a study 2 author decide what is and what isn't 3 likely known? 4 A. Well, if you -- I think it's 5 a fair thing to ask. But if you have a 6 date where there's a big lawsuit, per 7 se -- per se. And I bet you if you 8 counted how many commercials you see on a 9 topic, a liability topic, I bet you can 10 come up with a clear point where you can 11 say before this time frame there was this 12 amount of activity on TV, and after this 13 time frame, it was that much. And -- and 14 yeah, that was a crude estimate to do it 15 with what date the -- the first cases are 16 becoming very well known. 17 But I disagree with the 18 point that you can't approximate recall 19 bias. Because I -- I do think 20 Schildkraut's study was a good example of 21 it. 22 Q. The Schildkraut separated 23 the -- what was known from what was not 24 known based on a time frame of 2014,</p>
<p style="text-align: right;">Page 263</p> <p>1 So if the controls have the 2 same memory of using it before 3 it's widely known as after it's 4 widely known, but the cases, all 5 of the sudden after it's widely 6 known the cases remember using, 7 this habitual practice, all of the 8 sudden goes up, after it's widely 9 known, I take that as a fair 10 metric of recall bias. 11 And I've tried to explain in 12 my mind what other thing could get 13 played to explain that finding, 14 and I can't. 15 So with all due respect to 16 Dr. Narod's opinion, which is not 17 citing a paper, I have seen data 18 where I think -- I can't think of 19 another plausible explanation for 20 what's at play other than recall 21 bias using the metric I just 22 described. 23 BY MS. GARBER: 24 Q. Widely known is subjective,</p>	<p style="text-align: right;">Page 265</p> <p>1 correct? 2 A. Right. 3 Q. And what was known, what was 4 widely known in 2014 in your opinion? 5 MS. CURRY: Object to the 6 form. 7 THE WITNESS: Well, I don't 8 think it was as widely known 9 before 2014 of large payments and 10 lawsuits because of talc being 11 associated with -- with ovarian 12 cancer. 13 Because it's my assumption 14 that most lay people don't know of 15 the association because they've 16 been reading Cramer studies, or 17 Merritt or any of these other -- 18 I'm -- I'm going to assume that 19 the majority of people out there 20 who are going to be on these 21 studies and answering these 22 questionnaires, how are they going 23 to find out about talc. It's most 24 likely going to come through the</p>

<p style="text-align: right;">Page 266</p> <p>1 lay media. 2 The lay media pipes up more 3 when there is product liability 4 associated with it. 5 BY MS. GARBER: 6 Q. When -- 7 A. And so -- 8 Q. When was that first time 9 that there was lay media coverage of a 10 talc verdict or litigation? 11 A. I don't think it's -- I 12 can't give you the exact date where it 13 starts. I think you'd have to look, and 14 split your studies up into an earlier 15 period and a later period. 16 But, if people who don't 17 have ovarian cancer have the same 18 recollection of talc usage before and 19 after a certain point, but cases have a 20 very different memory of using it before 21 and after, I think that that's a very, 22 very powerful statement, and I would 23 argue that you'd be challenged to come up 24 with another reason why that would</p>	<p style="text-align: right;">Page 268</p> <p>1 describing. 2 I believe it was at play in 3 Schildkraut. And I don't believe 4 there is anything special about 5 Schildkraut's study design that 6 would make it at play in that 7 study and not another one. 8 BY MS. GARBER: 9 Q. Okay. Your opinion that 10 there's recall bias at play in the 11 case-control studies is based on 12 Schildkraut's study? 13 MS. CURRY: Object to the 14 form. 15 THE WITNESS: Not only. 16 BY MS. GARBER: 17 Q. What -- what other data do 18 you have to support that claim? 19 A. A trend in the strength of 20 association also increasing over time. 21 Q. Is that your opinion? 22 A. Yes. 23 Q. That there is a trend of 24 increasing --</p>
<p style="text-align: right;">Page 267</p> <p>1 happen, other than recall bias. 2 Q. Are you aware of 3 peer-reviewed study authors that state in 4 their papers with regard to talcum powder 5 product use and ovarian cancer, that say 6 reporting bias is not at play with regard 7 to the results? 8 MS. CURRY: Object to the 9 form. 10 THE WITNESS: I'm not 11 familiar with, and you -- you 12 posited that there's no good 13 metric. So I'm not sure, other 14 than me describing examples where 15 I believe it's at play and 16 explaining why, I would be curious 17 to hear the opinion of somebody 18 like Narod who says I don't 19 believe it's at play. 20 And if your only 21 justification for the statement is 22 that I believe it's habitual 23 versus memorable, that is less 24 persuasive than what I'm</p>	<p style="text-align: right;">Page 269</p> <p>1 A. To be fair the term 2 "trend" -- 3 Q. -- risk over time? 4 A. I'm sorry. 5 Q. Sorry. 6 A. The term "trend" is a -- is 7 a statistical term. So I -- I can't say 8 I've subjected this to a statistical 9 test. 10 But in earlier versus later 11 studies, you do see an increase. 12 Q. And, Doctor, if we look at 13 your Table 1 and we look at the odds 14 ratios -- or sorry, the relative risk, 15 do -- 16 A. Let me go back. 17 Q. -- does it show an increase 18 over time? 19 A. Let me go back one second. 20 Q. It's Exhibit 9. 21 A. I'd have to take the time to 22 look through all the odds ratios, but one 23 of the reasons why I color-coded it was I 24 can just look at that and -- and see that</p>

<p style="text-align: right;">Page 270</p> <p>1 there's more blue which are 2 nonsignificant studies -- 3 Q. Well -- 4 A. -- in the beginning -- 5 Q. Well, Doctor -- 6 A. -- and these -- these are 7 in -- in chronological order. 8 Q. Let's just look at the -- at 9 the white ones. 10 The odds ratios don't seem 11 to be increasing over time appreciably, 12 do they? 13 A. Not to my naked eye, no. 14 Q. Okay. 15 A. Just the frequency of 16 positive studies. 17 Q. And we're going to get to 18 the meta-analysis shortly. But the 19 meta-analyses over time. How many 20 meta-analyses are there, by the way? 21 A. There's probably about 22 seven. Maybe more. 23 Q. And do you, off the top of 24 your head, do you have a general sense of</p>	<p style="text-align: right;">Page 272</p> <p>1 case-control studies. It could have been 2 a problem had there been widespread 3 publicity about the possible association 4 between use of body powder and cancer. 5 The IARC" -- shortened that -- "working 6 group considers that there has not been 7 widespread public concern about the issue 8 and, therefore, considers it unlikely 9 that such a bias could explain the 10 consistent findings." 11 Did I read that correctly? 12 A. You did. And you're talking 13 about one type of recall bias. The 14 authors go on to say that's not the only 15 type of recall bias that we have to 16 consider. And in fact just recall bias 17 in cancer patients remembering exposures 18 at a higher rate cannot be ruled out. 19 Q. Doctor, you can't say to a 20 medical degree of probability that there 21 is recall bias that explain the 22 statistically significant increased risk 23 in the case-control studies, can you? 24 MS. CURRY: Object to the</p>
<p style="text-align: right;">Page 271</p> <p>1 what those odds ratios are? 2 A. Yes. I believe they're in 3 the same modest range as the studies that 4 are going into them. 1.24, 1.28, 1.31, 5 in that general region. 6 Q. Let's look at another paper, 7 the Langseth paper. You reviewed that as 8 part of your expert opinions, right? 9 A. Yes. 10 (Document marked for 11 identification as Exhibit 12 Holcomb-14.) 13 BY MS. GARBER: 14 Q. And if you turn to page -- 15 well, it's 358. It's the front page, 16 Doctor. 17 And if you look at -- if you 18 look at the right-hand column about 19 halfway down -- do you see where I am? 20 Where it says, "Methodological factors"? 21 A. Yes, I do. 22 Q. And the paper reads, 23 "Methodological factors such as recall 24 bias should always be considered in</p>	<p style="text-align: right;">Page 273</p> <p>1 form. 2 THE WITNESS: No. 3 BY MS. GARBER: 4 Q. In your expert report, do 5 you address at all anywhere in the four 6 corners of your report where study 7 authors -- peer-reviewed study authors 8 have indicated that recall bias is not 9 likely at play to explain the increased 10 risk? Do you address that issue at all? 11 A. No. 12 Q. And anywhere in the four 13 corners of your report, do you address 14 that study authors, peer-reviewed study 15 authors, have indicated that the 16 epidemiological data is consistent? 17 A. Do I present the data in my 18 report showing a 50/50 split and then say 19 that other people called it consistent? 20 No, I didn't. 21 Q. Let's turn to the 22 Schildkraut paper. 23 (Document marked for 24 identification as Exhibit</p>

<p style="text-align: right;">Page 274</p> <p>1 Holcomb-15.) 2 BY MS. GARBER: 3 Q. I'm going to mark it as 15. 4 Doctor, in your expert report at Page 9, 5 you indicate that, "Recall bias can lead 6 to spurious results in case-control 7 studies in a variety" -- 8 A. I'm sorry. Which page were 9 you reading from? 10 Q. Page 9. You indicate that, 11 "Recall bias can lead to spurious results 12 in case-control studies in a variety 13 of" -- 14 A. I'm sorry. I'm still trying 15 to find out where we are. I don't 16 think -- 17 Q. I'm just -- 18 A. One second. 19 Q. I'm just reading. 20 A. I know. I just want to read 21 along, if it's okay. 22 Yes, I'm ready for you. 23 Q. I'll try it again. You 24 indicate that, "Recall bias can lead to</p>	<p style="text-align: right;">Page 276</p> <p>1 once. 2 MS. CURRY: Where are you? 3 MS. GARBER: Right here. 4 THE WITNESS: Yes, I found 5 it. 6 BY MS. GARBER: 7 Q. "Although our findings 8 suggest that the publicity of class 9 action lawsuits may have resulted in 10 increased reporting of body powder use, 11 our data do not support that recall bias 12 alone before 2014 versus" -- "before 2014 13 versus 2014 or later would account for 14 the associations with body powder use and 15 epithelial ovarian cancer." 16 Did I read that correctly? 17 A. Yes, you did. 18 Q. So you didn't cite that in 19 your expert report, did you? 20 A. I -- maybe I'm 21 misunderstanding what they are saying 22 here. But they're saying maybe it's not 23 just not that alone. They're saying that 24 there could be other things that cause</p>
<p style="text-align: right;">Page 275</p> <p>1 spurious results in case-control studies 2 in a variety of clinical scenarios." And 3 then you cite to the Schildkraut 2016 4 paper, correct? 5 A. Right. 6 Q. All right. And -- 7 A. Hold on. Is that 8 Schildkraut that I'm -- let me see. 33, 9 yes. 10 Q. What you didn't cite to is 11 that the -- is what the authors stated 12 about the class action publicity. And so 13 if I can have you turn to Page 1416 of 14 the Schildkraut paper. 15 And so if you go to the 16 right-hand column, in the first paragraph 17 about halfway down with the sentence that 18 begins "although." 19 Do you see where I am? 20 A. Yes. 21 Q. It says, "Although our 22 findings" -- 23 A. No. I'm sorry. Wrong 24 although. They say "although" more than</p>	<p style="text-align: right;">Page 277</p> <p>1 recall bias. And they're saying -- 2 they're not discounting that that played 3 a role. They're saying there could be 4 other things, and they are pretty much 5 saying the same thing that I read before 6 where they said there's other causes of 7 recall bias other than just information 8 out in the media. 9 Possibly there were multiple 10 things at play that caused recall bias. 11 But that statement, they're not saying 12 there was no recall bias in the study. 13 They're just saying that it may be more 14 than just -- than just the lawsuits. 15 Q. That's your interpretation 16 of what they are saying? 17 A. Well, it says -- 18 MS. CURRY: Object to the 19 form. 20 THE WITNESS: -- it says, 21 "The data do not support the 22 recall bias alone before 2014 23 versus" -- "or later would account 24 for the associations." They</p>

<p style="text-align: right;">Page 278</p> <p>1 didn't say that it didn't. 2 They're just saying possibly 3 there's other things. 4 Yes, that's my 5 interpretation. 6 BY MS. GARBER: 7 Q. You don't know what the 8 other things are, do you? 9 A. They don't either. They're 10 saying -- they're not discounting recall 11 bias. They're just saying there may be 12 multiple sources. 13 Q. There was no widespread 14 publicity about talc and ovarian cancer 15 in the lay media in 2014, was there? 16 MS. CURRY: Object to the 17 form. 18 THE WITNESS: Then why did 19 Schildkraut decide to make that 20 analysis? They made that analysis 21 specifically because of the 22 lawsuits. 23 BY MS. GARBER: 24 Q. You're making that</p>	<p style="text-align: right;">Page 280</p> <p>1 They then design an experiment to see if 2 they could show a difference, and guess 3 what? The findings show exactly that. 4 That controls have the same level of 5 memory of exposure but the cases all of 6 the sudden jump up after 2014. 7 If you do an experiment 8 because you have a hypothesis, and your 9 experiment then proves the hypothesis, 10 you should reasonably say, this is why I 11 did it. I found what I found. I have 12 evidence of recall bias. That's the 13 whole point why they did this experiment. 14 Q. Did the Schildkraut authors 15 find a statistically significant finding 16 between genital powder use and epithelial 17 ovarian cancer? 18 A. Yes. What I found 19 interesting about -- 20 Q. Doctor, I didn't -- 21 A. I won't editorialize. I 22 won't -- sorry. 23 Q. I appreciate that. 24 A. Sure.</p>
<p style="text-align: right;">Page 279</p> <p>1 assumption, aren't you? 2 MS. CURRY: Object to the 3 form. 4 THE WITNESS: No. They -- 5 they say in the materials and 6 methods, why they split at 2014. 7 BY MS. GARBER: 8 Q. Do you know -- 9 A. They didn't just routinely 10 pick that up. 11 Q. I understand that, Doctor. 12 A. Right. 13 Q. But authors can make 14 mistakes, can't they? 15 A. I've been pointing out a lot 16 of them. 17 Q. Okay. You didn't point out 18 this one, did you? 19 A. Which mistake? 20 Q. Well, do you know if there 21 was widespread publicity about lawsuits 22 in 2014? 23 A. The authors consider that 24 maybe publicity would make a difference.</p>	<p style="text-align: right;">Page 281</p> <p>1 Q. At Page 8, Figure 1 of your 2 expert report, if we can turn there. 3 Are you there? 4 A. I am. 5 Q. Here you have a diagram 6 regarding the levels of evidence; is that 7 right? 8 A. Yes. 9 Q. I'll publish it on the Elmo. 10 This is your diagram for the levels of 11 evidence, correct? 12 A. It's not my diagram. 13 Q. In fact, it's the levels of 14 evidence for the Center For 15 Evidence-Based Medicine, or the CEBMA, 16 correct? 17 A. Management, yes. 18 Q. And what -- is that a 19 medical site or is that a business site? 20 A. I'm not sure. 21 Q. Why did you pick that 22 diagram? 23 A. I was looking -- I was 24 looking for an example of the -- what I</p>

<p style="text-align: right;">Page 282</p> <p>1 believe is a widely held hierarchy on the</p> <p>2 strengths of different study types based</p> <p>3 on their ability to be altered by</p> <p>4 inaccuracies. And this was the diagram</p> <p>5 that I found that I thought showed it the</p> <p>6 best.</p> <p>7 Q. Did you just look to find a</p> <p>8 diagram where cohorts were above</p> <p>9 case-control studies, is that how you</p> <p>10 searched?</p> <p>11 MS. CURRY: Object -- object</p> <p>12 to the form.</p> <p>13 THE WITNESS: If you search</p> <p>14 under levels of evidence, you will</p> <p>15 never find -- well, I may not say</p> <p>16 never. Who knows.</p> <p>17 I -- I don't think you</p> <p>18 will -- you have to search hard to</p> <p>19 find a -- a figure that has cohort</p> <p>20 studies above case-control</p> <p>21 studies.</p> <p>22 BY MS. GARBER:</p> <p>23 Q. Okay. So what you said is</p> <p>24 if you search under levels of evidence,</p>	<p style="text-align: right;">Page 284</p> <p>1 this.</p> <p>2 This is how I was -- this is</p> <p>3 how I was trained. I mean, this -- I'm</p> <p>4 looking for -- there are some things that</p> <p>5 I learned in reviewing for the -- for</p> <p>6 this deposition. And there are certain</p> <p>7 beliefs that I've long held because I was</p> <p>8 trained that way. I was forced -- well,</p> <p>9 not forced. I was happily taking a</p> <p>10 graduate level statistics course as part</p> <p>11 of my fellowship. And I was taught this</p> <p>12 then too. And that was part of a medical</p> <p>13 statistics course.</p> <p>14 So this is just consistent</p> <p>15 with what I already knew.</p> <p>16 Q. Where do meta-analyses fall</p> <p>17 on your pyramid?</p> <p>18 A. You know, the reason why</p> <p>19 meta-analyses aren't on these is because</p> <p>20 meta-analysis is a somewhat controversial</p> <p>21 practice. They -- there are some</p> <p>22 strengths to meta-analysis. There are</p> <p>23 some ways that meta-analyses can help.</p> <p>24 But you have to really, really conduct</p>
<p style="text-align: right;">Page 283</p> <p>1 you will never find -- I mean -- I mean I</p> <p>2 may not say never. Who knows. You have</p> <p>3 to search hard to find a figure that has</p> <p>4 cohorts above case-control studies.</p> <p>5 Is that your testimony?</p> <p>6 A. I'm sorry. It's below.</p> <p>7 Sorry. The other way around. Thank you.</p> <p>8 Q. Thanks for that.</p> <p>9 Did you attempt to find a</p> <p>10 medical website or an evidence-based</p> <p>11 medical website as to the levels of</p> <p>12 evidence?</p> <p>13 MS. CURRY: Object to the</p> <p>14 form.</p> <p>15 BY MS. GARBER:</p> <p>16 Q. Or did you find this one and</p> <p>17 stop?</p> <p>18 A. I -- I don't -- I don't</p> <p>19 think that whether -- statistics don't</p> <p>20 alter from one practice to the other.</p> <p>21 Weaknesses in a study design are built in</p> <p>22 and baked in. And so no, I didn't look</p> <p>23 for a specific medical website, because I</p> <p>24 thought it would look differently than</p>	<p style="text-align: right;">Page 285</p> <p>1 them in a strict format and not break the</p> <p>2 rules. So you can have a meta-analysis</p> <p>3 that's well -- you know, very well</p> <p>4 controlled, and look for heterogeneity</p> <p>5 and did all the things that you have to</p> <p>6 do, that would be a strong study. But</p> <p>7 it's so fraught with the ability to make</p> <p>8 it a poor study. So it's hard to put it</p> <p>9 on here. Because there is no one</p> <p>10 meta-analysis that's going to be</p> <p>11 positive. It's going to be a good study.</p> <p>12 Q. What -- what is your basis</p> <p>13 to say that -- that meta-analyses are</p> <p>14 controversial?</p> <p>15 A. Let me go through. I -- I</p> <p>16 thought I had actually given a citation</p> <p>17 for it when I said -- because I believe I</p> <p>18 made that statement in here as well.</p> <p>19 You know, I didn't cite to</p> <p>20 a -- to an exact paper.</p> <p>21 Q. So that's the opinion of</p> <p>22 Dr. Holcomb --</p> <p>23 A. No, I wish I had cited it,</p> <p>24 because I actually reviewed different</p>

<p style="text-align: right;">Page 286</p> <p>1 study designs. Not just for this. And</p> <p>2 that is, if given the -- the time, I</p> <p>3 could find a citation that makes the same</p> <p>4 statement. It's not just my opinion.</p> <p>5 Q. But there's not one in your</p> <p>6 report?</p> <p>7 A. There's not one in my</p> <p>8 report, no.</p> <p>9 Q. You can't think of one</p> <p>10 either, can you?</p> <p>11 A. No, I would have to do a</p> <p>12 search.</p> <p>13 Q. So when you had your</p> <p>14 statistics class, what was your text, do</p> <p>15 you remember?</p> <p>16 MS. CURRY: Object to the</p> <p>17 form.</p> <p>18 THE WITNESS: I don't.</p> <p>19 BY MS. GARBER:</p> <p>20 Q. And I asked you this before,</p> <p>21 if you knew who Kenneth Rothman was in</p> <p>22 the context of epidemiology. And you did</p> <p>23 not, correct?</p> <p>24 A. That's correct.</p>	<p style="text-align: right;">Page 288</p> <p>1 form.</p> <p>2 THE WITNESS: No. As I</p> <p>3 stated before, I would have to</p> <p>4 search and find you one.</p> <p>5 BY MS. GARBER:</p> <p>6 Q. Did you know that Kenneth</p> <p>7 Rothman is known for his work on teaching</p> <p>8 about epidemiologic research methodology?</p> <p>9 MS. CURRY: Object to the</p> <p>10 form.</p> <p>11 BY MS. GARBER:</p> <p>12 Q. Were you aware of that?</p> <p>13 A. Given the fact that I --</p> <p>14 I've already answered that I wasn't aware</p> <p>15 who he is, I don't see how I would know</p> <p>16 that.</p> <p>17 Q. Do you ever rely on</p> <p>18 meta-analyses in your practice to make</p> <p>19 clinical decisions, do you ever look at</p> <p>20 epidemiological data and set your care</p> <p>21 attendant to the results or are they just</p> <p>22 worthwhile in your opinion?</p> <p>23 MS. CURRY: Object to the</p> <p>24 form.</p>
<p style="text-align: right;">Page 287</p> <p>1 Q. So I'll represent to you</p> <p>2 that he is a professor of epidemiology,</p> <p>3 an author of textbooks and many published</p> <p>4 articles regarding epidemiology. Okay?</p> <p>5 I'll also show you that he</p> <p>6 is the study author of this widely used</p> <p>7 text with regard to epidemiology. You</p> <p>8 see that Kenneth Rothman is the first</p> <p>9 author, Sander Greenland is the second.</p> <p>10 And that goes back to that paper on</p> <p>11 statistical significance. That's the</p> <p>12 author, right?</p> <p>13 You are not familiar with</p> <p>14 those authors or this text; is that</p> <p>15 correct?</p> <p>16 A. Or the fact that it's widely</p> <p>17 used, no.</p> <p>18 Q. Okay. You've never read a</p> <p>19 book with regard to meta-analyses and the</p> <p>20 utility of them -- strike that.</p> <p>21 Can you name a text with</p> <p>22 regard to meta-analyses and the utility</p> <p>23 of them?</p> <p>24 MS. CURRY: Object to the</p>	<p style="text-align: right;">Page 289</p> <p>1 THE WITNESS: No, no,</p> <p>2 they're worthwhile but they -- we</p> <p>3 don't -- I've never made any</p> <p>4 clinical decisions on care based</p> <p>5 on one study. It's -- it's --</p> <p>6 meta-analysis will become part of</p> <p>7 the totality of what I'm looking</p> <p>8 at.</p> <p>9 BY MS. GARBER:</p> <p>10 Q. Meta-analysis is looking at</p> <p>11 a systematic review of a body of</p> <p>12 literature, correct?</p> <p>13 A. Meta-analysis is taking</p> <p>14 subjects that were in different places</p> <p>15 and different times and mixing them up as</p> <p>16 if they were all in the same place at the</p> <p>17 same time under the same conditions,</p> <p>18 hence it's fraught with potential issues.</p> <p>19 Q. There's utility to them,</p> <p>20 isn't there?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: If done</p> <p>24 correctly, yes.</p>

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<p>1 BY MS. GARBER:</p> <p>2 Q. What are -- what is the</p> <p>3 utility of them?</p> <p>4 A. For example, if you had --</p> <p>5 this question of do you have enough</p> <p>6 numbers in your cohort studies to</p> <p>7 approximate an effect size that you see</p> <p>8 in your case-control studies, well, you</p> <p>9 might be able to do that in a</p> <p>10 meta-analysis. You might be able to put</p> <p>11 all these things together.</p> <p>12 And Berge says when we put</p> <p>13 everything together, we felt we had</p> <p>14 99 percent chance of finding the effect</p> <p>15 size in the case-control size when we put</p> <p>16 all the people together from the three</p> <p>17 cohort studies that Berge put together.</p> <p>18 So that's an example where</p> <p>19 it might be helpful. If you think you</p> <p>20 can put together studies that are biased</p> <p>21 for example, and that if you mix them</p> <p>22 altogether the bias will be diluted,</p> <p>23 that's where it's not helpful.</p> <p>24 Q. Do you have a source to cite</p>	<p>1 the bias? I don't can't think of a</p> <p>2 source. I know it's not -- I know even</p> <p>3 some of your experts don't -- don't</p> <p>4 refute that. Ellen Blair Smith says as</p> <p>5 much in her -- in her expert report. She</p> <p>6 agrees that that's the case.</p> <p>7 Q. Does she say there's no</p> <p>8 utility to the meta-analyses because of</p> <p>9 bias?</p> <p>10 A. I didn't -- I didn't say</p> <p>11 that. If you're asking me about the</p> <p>12 statement, I can tell you that I can find</p> <p>13 support of that statement by some of the</p> <p>14 plaintiff experts.</p> <p>15 Q. Let's look at a paper by Ken</p> <p>16 Rothman.</p> <p>17 (Document marked for</p> <p>18 identification as Exhibit</p> <p>19 Holcomb-16.)</p> <p>20 BY MS. GARBER:</p> <p>21 Q. I'm going to mark as</p> <p>22 Exhibit 16 a paper titled "Six Persistent</p> <p>23 Research Misconceptions" by Kenneth</p> <p>24 Rothman. You've not seen that paper</p>
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<p>1 that when you put cohort studies</p> <p>2 together, that the bias will affect the</p> <p>3 results of a meta-analysis?</p> <p>4 MS. CURRY: Object to the</p> <p>5 form.</p> <p>6 THE WITNESS: I didn't --</p> <p>7 that wasn't my statement.</p> <p>8 BY MS. GARBER:</p> <p>9 Q. Do you have a source for</p> <p>10 that?</p> <p>11 A. I didn't say that. So why</p> <p>12 would I have a source?</p> <p>13 Q. Do you have a source for</p> <p>14 what you just said?</p> <p>15 A. Please repeat it.</p> <p>16 Q. You said, "If you think you</p> <p>17 can put together studies that are biased,</p> <p>18 for example, and that if you mix them</p> <p>19 together, although the bias will be</p> <p>20 diluted, that's where it's not helpful."</p> <p>21 What is your source for that</p> <p>22 statement?</p> <p>23 A. The source? That adding</p> <p>24 biased studies together doesn't dilute</p>	<p>1 before?</p> <p>2 A. No.</p> <p>3 Q. Doctor, if you look at the</p> <p>4 left-hand column, do you see here that's</p> <p>5 illuminated or highlighted?</p> <p>6 Do you see where I am?</p> <p>7 A. Yes, I do.</p> <p>8 Q. It reads, "Scientific</p> <p>9 knowledge changes rapidly, but the</p> <p>10 concepts and methods of conduct of</p> <p>11 research change more slowly. To</p> <p>12 stimulate discussion of outmoded thinking</p> <p>13 regarding the conduct of research, I list</p> <p>14 six misconceptions about research that</p> <p>15 persist long after their flaws become</p> <p>16 apparent.</p> <p>17 "These misconceptions are:</p> <p>18 "Number one, the</p> <p>19 hierarchy" -- I'm sorry.</p> <p>20 "Number one, there is a</p> <p>21 hierarchy of study designs. Randomized</p> <p>22 trials provide the greatest validity</p> <p>23 followed by cohort studies, with</p> <p>24 case-control studies being least</p>

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<p>1 reliable." 2 So Dr. Rothman is indicating 3 that there is a misconception that there 4 is a hierarchy which ranks cohort studies 5 above case-control studies. 6 A. He's admitting -- 7 Q. Do you see that? 8 A. Yes. He's admitting that 9 this is the hierarchy. 10 Q. No. He's admitting that it 11 is a misconception to say that cohort 12 studies are above case-control studies. 13 A. He's admitting that this is 14 a common thought, right? He's saying 15 there's a hierarchy. The misconceptions 16 are, there's a hierarchy. So he's saying 17 there is this thought out there that 18 there's a hierarchy, because it's clear 19 that there is and it's a commonly taught 20 thing. 21 So this one doctor is 22 saying, similar to the doctors you 23 brought up earlier, let's throw away 24 convention. And I would have to read the</p>	<p>1 Q. Is that what he's saying? 2 MS. CURRY: Object to the 3 form. 4 THE WITNESS: Yes, yes. 5 BY MS. GARBER: 6 Q. Okay. Thank you. That's 7 the only question that I had. 8 He's also saying, number 9 three, "If a term that denotes the 10 product of two factors is a regression 11 model" -- "is a regression model is not 12 statistically significant, then there is 13 no biologic interaction between those 14 factors." 15 So again, he is attempting 16 to debunk this notion of holding at 17 disparate statistically significant from 18 nonstatistically significant data, 19 correct? 20 MS. CURRY: Object to the 21 form. 22 BY MS. GARBER: 23 Q. That's a misconception? 24 THE WITNESS: I'm just</p>
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<p>1 whole paper to understand why. But I 2 take this as -- the first statement to 3 say that there is -- he doesn't say well 4 recognized. 5 But I believe he took the 6 time to write this paper to try to debunk 7 some of these things, because they are 8 out there and well accepted. 9 Q. Right. They're out there, 10 and he is concerned about that, that 11 clinicians like yourself are putting 12 cohort above case-control. And he's 13 trying to debunk that because he doesn't 14 agree with that; is that fair? 15 MS. CURRY: Object to the 16 form. 17 MR. MIZGALA: Object to the 18 form. 19 THE WITNESS: Can I tell you 20 that there's -- 21 BY MS. GARBER: 22 Q. Doctor -- 23 A. -- not as much difference in 24 what --</p>	<p>1 curious. Are you here -- are you 2 more interested in me agreeing 3 that you're reading this correctly 4 or my response to it? Because I'd 5 love to jump in and tell you about 6 what I think about these 7 statements. But I feel like I'm 8 not being given an opportunity. 9 And I -- you know, I could have 10 come down and read all the papers 11 that you want to read and read 12 them out loud for you. 13 But I'm assuming that you 14 would like to know if I agree with 15 it, why not if I disagree. 16 But I feel like you keep on 17 asking me, is that -- did I read 18 that correctly, and I said yes, 19 you read very well. And you say 20 do you agree with it? And I say 21 no. 22 And then I go to try to 23 explain, and you move on. And I'm 24 trying to understand what's the</p>

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<p>1 purpose of that?</p> <p>2 BY MS. GARBER:</p> <p>3 Q. Are you done?</p> <p>4 A. Yes, I am.</p> <p>5 Q. Okay. You know that I am</p> <p>6 here to ask you questions, and you're</p> <p>7 here to answer questions. You also know</p> <p>8 that this is in the context of a</p> <p>9 cross-examination and your counsel has</p> <p>10 the opportunity to ask you questions too.</p> <p>11 You understand that, right?</p> <p>12 A. I understand.</p> <p>13 Q. Thanks.</p> <p>14 All right. So Dr. Rothman</p> <p>15 in his peer-reviewed and published paper</p> <p>16 indicates that there is a misconception</p> <p>17 about the hierarchy, which places cohorts</p> <p>18 above case-control. And this is a</p> <p>19 misconception about statistical</p> <p>20 significance and calling nonstatistically</p> <p>21 results different from statistical</p> <p>22 significant results.</p> <p>23 Can we agree with that?</p> <p>24 MS. CURRY: Object to the</p>	<p>1 that's what he's doing. I don't know the</p> <p>2 author.</p> <p>3 But to suggest that</p> <p>4 something's published and ergo it's</p> <p>5 worthwhile, that's a big misconception.</p> <p>6 Q. All right. And otherwise</p> <p>7 you agree with what I just said, if we --</p> <p>8 if we amend my question to say it is a</p> <p>9 published article --</p> <p>10 A. Can you repeat it because I</p> <p>11 got so stuck on your mentioning that it</p> <p>12 was peer-reviewed that I didn't --</p> <p>13 Q. I'll just move on.</p> <p>14 A. -- I stopped listening.</p> <p>15 Q. Did you attempt to look at</p> <p>16 what your institution said about study</p> <p>17 hierarchies?</p> <p>18 MS. CURRY: Object to the</p> <p>19 form.</p> <p>20 THE WITNESS: My</p> <p>21 institution? Which institution?</p> <p>22 BY MS. GARBER:</p> <p>23 Q. Where do you work? Where do</p> <p>24 you work?</p>
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<p>1 form.</p> <p>2 THE WITNESS: No.</p> <p>3 BY MS. GARBER:</p> <p>4 Q. You don't agree with that?</p> <p>5 A. Because you started off the</p> <p>6 statement by saying this is</p> <p>7 peer-reviewed. This is a review article.</p> <p>8 I don't know if it's peer-reviewed.</p> <p>9 Q. It's a published article?</p> <p>10 A. It's not peer-reviewed</p> <p>11 necessarily.</p> <p>12 Q. But it's a published?</p> <p>13 A. You said peer-reviewed.</p> <p>14 Q. I know.</p> <p>15 A. I'm saying, do you know that</p> <p>16 it was peer reviewed?</p> <p>17 Q. Now I'm saying, it's a</p> <p>18 published article, right?</p> <p>19 A. Simple -- yeah, you can --</p> <p>20 it's an open access journal that you</p> <p>21 can -- I mean, just because something is</p> <p>22 published, you're making it seem like --</p> <p>23 there's something called vanity</p> <p>24 publishing. And I'm not suggesting</p>	<p>1 A. I work in two -- I'm</p> <p>2 actually an employee of Weill Cornell</p> <p>3 Medical Center. But I --</p> <p>4 Q. Okay. And that's your</p> <p>5 institution, right?</p> <p>6 A. As is New York Presbyterian</p> <p>7 Hospital, which is separate, so which</p> <p>8 institution --</p> <p>9 Q. You have privileges at both?</p> <p>10 A. I don't have privileges in</p> <p>11 the medical school because that's not our</p> <p>12 medical school's work. So, no, I don't</p> <p>13 have privileges --</p> <p>14 Q. You don't have privileges</p> <p>15 in -- in the hospital associated --</p> <p>16 A. The hospital is -- is owned</p> <p>17 by New York Presbyterian Hospital.</p> <p>18 Q. Okay.</p> <p>19 A. So I have no privileges at</p> <p>20 Weill Cornell.</p> <p>21 Q. Got it. I didn't understand</p> <p>22 the -- the nature of that.</p> <p>23 So did you look at Weill</p> <p>24 Cornell's study hierarchy?</p>

<p style="text-align: right;">Page 302</p> <p>1 MS. CURRY: Object to the 2 form. 3 THE WITNESS: I don't know 4 if -- well, no, I don't know that 5 Weill Cornell has a study 6 hierarchy. 7 BY MS. GARBER: 8 Q. Okay. 9 (Document marked for 10 identification as Exhibit 11 Holcomb-17.) 12 BY MS. GARBER: 13 Q. Let's mark as Exhibit 17 a 14 document. 15 And, Doctor, this is a 16 printout of a website from Weill Cornell. 17 And it is titled "Evidence-based 18 Medicine, or EBM, Defined." 19 Did I read that correctly? 20 A. You did. 21 Q. Under the definition it 22 reads, "Evidence-based medicine requires 23 the integration of the best research 24 evidence with our clinical expertise, and</p>	<p style="text-align: right;">Page 304</p> <p>1 from studies, and then brought into 2 clinical practice. 3 Q. Okay. And under that 4 heading in the hierarchy at the top lists 5 Cochrane systematic reviews. Do you know 6 what those are? 7 A. Yes. 8 Q. Have you ever considered 9 them for purposes of your practice? 10 A. Yes. 11 Q. You ever considered them for 12 purposes of your opinions? 13 A. They are part of it -- 14 MS. CURRY: Object to the 15 form. 16 THE WITNESS: -- yes. 17 BY MS. GARBER: 18 Q. And next on the top of the 19 hierarchy is what? 20 A. I'm not sure what SR is -- 21 systematic reviews, must be, and 22 meta-analyses. 23 Q. Mm-hmm. So up above the 24 cohorts and the case-control are</p>
<p style="text-align: right;">Page 303</p> <p>1 our patients' unique values and 2 circumstances." 3 And then there's a citation 4 to Straus, S-T-R-A-U-S, et al., 5 Evidence-based Medicine 2015. 6 Did you see this before you 7 put in your expert report the hierarchy 8 that you put from the -- 9 A. No. 10 Q. -- management website? 11 A. No. 12 MS. CURRY: Object to the 13 form. 14 BY MS. GARBER: 15 Q. Doctor, if we could look at 16 this together. 17 Evidence-based medicine. 18 That is what -- that's a -- that's a 19 medical term, right, evidence-based 20 medicine? 21 A. Yes. 22 Q. And it implies what to you? 23 A. It implies practicing on 24 what's deemed to be accurate findings</p>	<p style="text-align: right;">Page 305</p> <p>1 systematic reviews and meta-analyses, 2 right, on this evidence-based hierarchy, 3 right? 4 A. Yes. 5 Q. All right. And then there's 6 evidence guidelines and the evidence 7 summaries. And then one, two, three, 8 four -- fifth down, lists randomized 9 clinical trials, case cohorts, and 10 control studies. All in the same line, 11 correct? 12 A. Yes. 13 Q. And so that's a little 14 different than your hierarchy, right? 15 A. Yes. 16 MS. CURRY: Object to the 17 form. 18 BY MS. GARBER: 19 Q. And this one relates to 20 medicine, not to management and business, 21 right? 22 MS. CURRY: Object to the 23 form. 24 THE WITNESS: Yes. It</p>

<p style="text-align: right;">Page 306</p> <p>1 relates to medicine. 2 BY MS. GARBER: 3 Q. And this is from the web -- 4 this is from the -- off the website of 5 where you practice medicine? 6 A. Yes. 7 Q. And where you teach? 8 A. And where I teach. And I 9 don't necessarily disagree that a 10 well-designed -- 11 Q. Doctor, I didn't ask you if 12 you disagreed or not -- 13 A. Okay. 14 Q. -- I just asked you -- 15 A. Just to read the website. 16 MS. CURRY: Let him finish 17 his response, please. 18 BY MS. GARBER: 19 Q. Are you aware that the link 20 between smoking and lung cancer was 21 initially discovered in the case-control 22 studies carried out in the 1950s, are you 23 aware of that? 24 A. Yes.</p>	<p style="text-align: right;">Page 308</p> <p>1 the cohort study. And then the 2 weaknesses and biologic 3 plausibility that led me to the 4 opinion that I offered in the 5 beginning. 6 BY MS. GARBER: 7 Q. Do you believe that the 8 case-control studies are less reliable 9 than the cohort studies? 10 A. I believe that all study 11 designs can have weaknesses. And a 12 poorly designed study can come in the 13 form of any type. 14 You can have a poorly 15 designed cohort study. You can have a 16 poorly designed case-control study. You 17 can have a poorly designed meta-analysis. 18 I'm sorry, I forgot your 19 question now. 20 Q. That's okay. 21 And with regard to the 22 cohort studies, Doctor, I don't see in 23 your expert report where you talk about 24 the design limitations, specifically what</p>
<p style="text-align: right;">Page 307</p> <p>1 Q. As a physician you do 2 consider meta-analyses in your practice? 3 A. Yes. 4 Q. And as to the cohort studies 5 in this case, do you rely primarily on 6 them in support of your opinions? 7 MS. CURRY: Object to the 8 form. 9 THE WITNESS: No. As I 10 stated in the beginning, it's the 11 totality of their reviews. 12 So the cohort studies which, 13 you know, I will still say as a 14 design are less prone to bias than 15 case-control studies regardless of 16 how this is, I don't think any -- 17 anybody questions that. 18 I will look at the whole 19 picture which is what I did with 20 the talc literature. So it was 21 the inconsistency in case-control 22 results. It was the low level of 23 strength of association that I 24 found plus the lack of findings in</p>	<p style="text-align: right;">Page 309</p> <p>1 even the authors talk about as the design 2 limitations. 3 You don't -- you don't talk 4 about those in your expert report, right? 5 A. I'd have to read through it. 6 I'm not sure. 7 Q. Okay. 8 A. I'm not sure if I address 9 that. 10 Q. I'll represent to you that I 11 couldn't find a single word about you 12 talking about the design limitations. So 13 you can check me to see if I'm wrong. 14 You do talk about some of 15 the design limitations and the problems 16 with the case-control studies, correct? 17 A. That is true. 18 Q. And you do talk about some 19 of the design limitations and problems of 20 the meta-analyses, right? 21 A. Yes. 22 Q. And so in your opinion the 23 case-control studies do not support 24 statistically an increased risk of talcum</p>

<p style="text-align: right;">Page 310</p> <p>1 powder product exposure and risk of 2 ovarian cancer, right? 3 A. My feeling is that the 4 case-control studies are not consistent 5 in their results. That some studies show 6 an association and some studies don't. 7 And that it seems to be as consistent as 8 flipping a coin. 9 Q. Do they support the opinion 10 that there is an increased risk, yes or 11 no? 12 A. Some do, and some don't. 13 Q. Okay. What about the -- the 14 cohort studies, do they support an 15 increased risk for -- 16 A. No. 17 Q. Let me finish my sentence. 18 A. Sorry. 19 Q. Do the cohort studies 20 support an increased risk for talcum 21 powder exposure and ovarian cancer? 22 A. The initial Gertig study had 23 found that in a subset of just 24 histologically split out there was an</p>	<p style="text-align: right;">Page 312</p> <p>1 increased risk in ovarian cancer? 2 MS. CURRY: Object to the 3 form. 4 THE WITNESS: In which 5 study? 6 BY MS. GARBER: 7 Q. In the meta-analysis as a 8 body? 9 A. Again, yes. 10 Q. Okay. The only group of 11 studies that, in your opinion, don't 12 support an increased risk, you don't have 13 a single criticism of, yet the studies 14 that do, you criticize; is that fair? 15 MS. CURRY: Object to the 16 form. 17 THE WITNESS: If you -- that 18 is true. I'm criticizing all the 19 case-control studies as a design. 20 But that means I'm criticizing the 21 ones that didn't find an 22 association just as much as I'm 23 criticizing the ones that do. 24 I'm saying at the design,</p>
<p style="text-align: right;">Page 311</p> <p>1 increased risk of serous carcinoma. The 2 reason why we're saying no about cohort 3 studies is because the same group of 4 women, when followed longer in Gates, 5 that significance dropped down. 6 So I would say overall in 7 those populations, the sister study, the 8 WHI, and the Nurses' Health Study, that 9 they did not support an increased risk. 10 Q. Do the meta-analyses as a 11 whole support an increased risk of talcum 12 powder exposure and ovarian cancer? 13 A. Not surprisingly, the 14 meta-analyses all say that the 15 case-control studies do and the cohort 16 studies don't, and when you mix the 27 17 case-control studies with the three 18 cohorts and weigh them fairly equally, 19 that you will find an increased risk when 20 you mix them altogether, which is not at 21 all surprising. 22 Q. Do the odds ratios that are 23 reported for epithelial ovarian cancer 24 and genital talc exposure support an</p>	<p style="text-align: right;">Page 313</p> <p>1 there are flaws in case-control 2 studies. And so I'm not just 3 trying to pick on the positive 4 case-control studies. I'm talking 5 about case-control studies. 6 And that's -- from my look 7 at the literature, I'm saying that 8 about half of them saying there is 9 an association and half of them 10 saying that there's not, I'm 11 criticizing case-control study 12 design altogether. 13 BY MS. GARBER: 14 Q. You said generally that 15 there can be design problems with 16 cohorts, yet I don't see a single 17 reference to the design limitations of 18 the cohorts that play in this case, 19 right? 20 A. Well, one of the concerns 21 that you can have with a cohort study is 22 whether or not you follow patients long 23 enough, whether you have sufficient size. 24 And in my read, in my</p>

<p style="text-align: right;">Page 314</p> <p>1 understanding of the data, I was not 2 concerned -- size I already explained, 3 that I was concerned since it was such a 4 small level of effect in the case-control 5 studies. It wasn't until I saw Berge, 6 when they put them together, that I 7 realized that you could overcome that 8 size problem. And so I was not concerned 9 that you would pick up an effect size 10 that small. 11 Q. Do you remember what my 12 question was? 13 A. Yes. You asked me did I 14 bring up criticisms. And I'm saying my 15 criticisms about cohort studies in 16 general, I was able to put to rest with 17 my reading of those cohort studies, 18 whereas things like recall bias -- and we 19 already went through Schildkraut -- I was 20 able to find examples of why I was 21 concerned, and then find examples of 22 studies where I thought they were at 23 play. 24 So, I'm just explaining to</p>	<p style="text-align: right;">Page 316</p> <p>1 true, Doctor, that none of the cohort 2 studies were specifically designed to 3 investigate the relationship of talcum 4 powder product use and the risk of 5 ovarian cancer? 6 MS. CURRY: Object to the 7 form. 8 THE WITNESS: Specifically 9 no. 10 BY MS. GARBER: 11 Q. Rather, the cohorts were 12 designed to study a large number of 13 outcomes in a wide variety of exposures, 14 true? 15 A. True. When you do a cohort 16 study, because of the time and money 17 invested, you are very rarely going to 18 design a cohort study to answer one 19 question. 20 Q. Right. And that's a 21 limitation, right? 22 MS. CURRY: Object to the 23 form. 24 THE WITNESS: I'm not</p>
<p style="text-align: right;">Page 315</p> <p>1 you, you're saying, why is there an 2 absence of criticisms on these things. I 3 didn't find any evidence of those things 4 at play in the cohort studies. 5 Q. So you didn't find as the 6 expert for Johnson & Johnson in the 7 studies that didn't find an increased 8 risk in your opinion, and you didn't 9 bother to advise the court that there are 10 design limitations in that group of 11 studies, the cohorts, yet you did tell 12 the court about the study limitations of 13 the case-control and the study 14 limitations of the meta-analyses, true? 15 MS. CURRY: Object to the 16 form. 17 BY MS. GARBER: 18 Q. I didn't ask why. I just 19 said true. 20 A. True. 21 Q. Thank you. 22 All right. Let's look at a 23 couple of things. So in looking at the 24 cohort studies and the limitations, is it</p>	<p style="text-align: right;">Page 317</p> <p>1 sure -- 2 BY MS. GARBER: 3 Q. It's okay. 4 A. -- in what way that was a 5 limitation. 6 Q. You're not sure? 7 A. No. 8 Q. Okay. With a cohort study 9 looking at a rare cancer like ovarian 10 cancer, the study has to be large enough 11 to detect the true relative risk. 12 Do you agree with that? 13 A. I agree. 14 Q. So in fact, that a cohort 15 does not find a significant relative risk 16 can be due to the small study size, 17 correct? 18 MS. CURRY: Object to the 19 form. 20 THE WITNESS: Correct. 21 BY MS. GARBER: 22 Q. The sample sizes and the 23 number of cases of most of the cohort 24 study publications were too small to be</p>

<p style="text-align: right;">Page 318</p> <p>1 able to accurately detect a relative risk 2 around 1.2 to 1.3. 3 Do you agree with that 4 statement? 5 MS. CURRY: Object to the 6 form. 7 THE WITNESS: I'm not sure. 8 I -- I've seen the opinion 9 expressed in the Narod paper that 10 you -- you had produced earlier. 11 And I keep on referring to Berge 12 only because it was the one 13 meta-analysis where they actually 14 addressed that. 15 Narod said you need like 16 200,000 women to see this effect 17 size, and then you look at three 18 studies with 78,000, 61,000, 19 41,000. You're getting close to 20 that 200,000. They say, we have 21 99 percent power to detect the 22 effect size in a meta-analysis 23 that is held so highly to see the 24 same effect size in the</p>	<p style="text-align: right;">Page 320</p> <p>1 your study and then coming out 2 with spurious values. 3 And one of the first things 4 that is generally thought to be a 5 no-no, we don't do cross-trial 6 comparisons in general. If you 7 had a group of women taking this 8 chemotherapy over here and a group 9 of women taking chemotherapy over 10 there, we don't compare those two 11 chemotherapies and say well, this 12 study showed a response rate of 13 this. This showed this, this, 14 that. 15 So whenever you're going 16 against that rule and you're going 17 to mix these people together, you 18 want to make sure that there's not 19 heterogeneity. And the reason why 20 I keep on going back to Berge, is 21 because Penninkilampi somehow 22 looked at pretty much the same 23 studies and did not find a problem 24 with heterogeneity, whereas Berge</p>
<p style="text-align: right;">Page 319</p> <p>1 case-control studies. 2 BY MS. GARBER: 3 Q. Well, you do go to Berge all 4 the time. But you do that by ignoring 5 Penninkilampi which was a more recent 6 study, right? 7 A. But the problem -- 8 MS. CURRY: Object to the 9 form. 10 THE WITNESS: The problem -- 11 the problem with Penninkilampi is 12 that Berge says the first thing 13 out the box is I'm going to look 14 at heterogeneity and see if these 15 should be mixed. And one of the 16 problems with putting 17 meta-analyses on the top of your 18 thing is assuming it's well 19 designed. 20 And I think all these 21 studies can have design flaws. 22 But I think meta-analysis is 23 probably the most at risk for 24 making mistakes in the design of</p>	<p style="text-align: right;">Page 321</p> <p>1 says yeah, I found this 2 difference, but I'll caution you, 3 don't take it too seriously 4 because there was too much 5 heterogeneity in these two study 6 designs. 7 And I'm just questioning, 8 how is it that Berge was able to 9 find this heterogeneity issue and 10 yet other -- Taher, Penninkilampi, 11 other people who looked at largely 12 overlap the same study group, with 13 very little difference, somehow 14 didn't come up with this problem. 15 BY MS. GARBER: 16 Q. So -- 17 A. And so I keep on going back 18 to it because it's the only meta-analysis 19 that says okay, here is the group if we 20 put them altogether. Maybe we shouldn't 21 be doing it in the first place. But 22 we're going to do it. 23 We put them altogether, but 24 here is what it looks like if you leave</p>

<p style="text-align: right;">Page 322</p> <p>1 them separately.</p> <p>2 Q. So, Doctor, if you would</p> <p>3 then look at the Penninkilampi</p> <p>4 meta-analysis which is later than the</p> <p>5 Berge meta-analysis, right?</p> <p>6 A. Yes.</p> <p>7 Q. And the Berge meta-analysis,</p> <p>8 and you say that those are basically the</p> <p>9 same studies that the two study groups --</p> <p>10 A. There's a lot of overlap.</p> <p>11 Q. -- studied, right?</p> <p>12 And the Penninkilampi says</p> <p>13 there's no heterogeneity. And the Berge</p> <p>14 that says there is. What is your basis</p> <p>15 to say Berge is right and Penninkilampi</p> <p>16 is wrong?</p> <p>17 A. Because if you can share --</p> <p>18 Q. You don't like the results</p> <p>19 of Penninkilampi?</p> <p>20 A. -- if you can share -- yes.</p> <p>21 If you can share Penninkilampi, because</p> <p>22 Berge the -- Berge, Berge, I don't know</p> <p>23 if I'm pronouncing it correctly, sorry.</p> <p>24 Q. However you say it.</p>	<p style="text-align: right;">Page 324</p> <p>1 remember them splitting out the case</p> <p>2 controls and the -- they -- they do say</p> <p>3 all the impact -- the positive effect was</p> <p>4 in case-control, not in cohort studies.</p> <p>5 Taher does say that.</p> <p>6 Although Taher, if you look</p> <p>7 at the tables, there's a few things that</p> <p>8 I don't understand. Like they -- they</p> <p>9 say, actually in the cohort studies that</p> <p>10 there is some increased risk of -- of</p> <p>11 ovarian cancer.</p> <p>12 And they -- they are</p> <p>13 actually including Gates in that. And</p> <p>14 they say there's possibly an increased</p> <p>15 risk in -- in Gates. And then go onto</p> <p>16 say, "but not mucinous."</p> <p>17 But in Gates there was no</p> <p>18 increased risk of any of the types. In</p> <p>19 fact, the only one that came the closest</p> <p>20 to it was mucinous.</p> <p>21 Q. We're going to get to that,</p> <p>22 and we'll go through that data, okay?</p> <p>23 A. Sure.</p> <p>24 Q. Let's look at Health Canada</p>
<p style="text-align: right;">Page 323</p> <p>1 A. The first thing they do is</p> <p>2 to talk about heterogeneity in study</p> <p>3 design. And I'd like to see in</p> <p>4 Penninkilampi to say that they considered</p> <p>5 study design heterogeneity and found</p> <p>6 none. Because I don't remember seeing</p> <p>7 that. I'd like to see the paper if you</p> <p>8 have it. But I don't remember them even</p> <p>9 addressing it.</p> <p>10 He goes into act -- other</p> <p>11 lesser important areas of heterogeneity</p> <p>12 like the percentage that looked at mode</p> <p>13 of exposure and things like that.</p> <p>14 So if one doesn't even</p> <p>15 mention it, and one mentions it and says</p> <p>16 we found heterogeneity, I don't assume</p> <p>17 that the one who didn't even mention it,</p> <p>18 looked at it, found heterogeneity and</p> <p>19 just decided not to mention it. I'm</p> <p>20 assuming they didn't think about it.</p> <p>21 Q. What did the Taher paper say</p> <p>22 about heterogeneity? Was there a</p> <p>23 significant overlap in the Taher paper?</p> <p>24 A. I don't remember -- I don't</p>	<p style="text-align: right;">Page 325</p> <p>1 as to the topic of case-control -- or</p> <p>2 cohort studies.</p> <p>3 A. Yes.</p> <p>4 Q. Page 20.</p> <p>5 All right. On Page 20 in</p> <p>6 this paragraph here. Do you see where I</p> <p>7 am in the -- in the Taher paper?</p> <p>8 A. Yes, I see it.</p> <p>9 Q. Or, sorry, Health Canada.</p> <p>10 It indicates -- I'll -- I'll</p> <p>11 start with the first given.</p> <p>12 "Given the long latency</p> <p>13 period of ovarian cancer, the follow-up</p> <p>14 periods may not have been sufficient to</p> <p>15 capture all cases for the individual</p> <p>16 cohort studies.</p> <p>17 "Also, given the rarity of</p> <p>18 ovarian cancer, many of the available</p> <p>19 human studies may not be sufficiently</p> <p>20 powered to detect a low odds ratio."</p> <p>21 Do you agree with both of</p> <p>22 those statements?</p> <p>23 A. No.</p> <p>24 Q. Which ones do you --</p>

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<p>1 A. I'll start off.</p> <p>2 Q. Do you agree with either</p> <p>3 one?</p> <p>4 A. I -- I'll start off. The</p> <p>5 long latency for ovarian cancer suggests</p> <p>6 we know the latency for ovarian cancer.</p> <p>7 To determine the latency for a cancer you</p> <p>8 have to know the time from exposure to a</p> <p>9 carcinogen to the time it develops.</p> <p>10 So most people who make</p> <p>11 statements about ovarian cancer latency</p> <p>12 will look at things like women who</p> <p>13 developed ovarian cancer after the</p> <p>14 dropping of the atomic bomb at Hiroshima.</p> <p>15 They'll look at the chance of developing</p> <p>16 ovarian cancer after heavy occupational</p> <p>17 exposure to asbestos.</p> <p>18 You have to know the</p> <p>19 carcinogen first before you can determine</p> <p>20 the latency. So they are assuming, well,</p> <p>21 if there is long latency in these</p> <p>22 situations it should be the same. But</p> <p>23 instead it's taken as a given.</p> <p>24 Given the long latency of</p>	<p>1 MS. CURRY: I'm sorry.</p> <p>2 You -- you've asked three</p> <p>3 questions already that he's trying</p> <p>4 to respond to. So we'll still on</p> <p>5 question Number 1 as to why he</p> <p>6 disagrees with these two</p> <p>7 statements.</p> <p>8 BY MS. GARBER:</p> <p>9 Q. I just -- I just now asked</p> <p>10 you if you have an opinion as to the</p> <p>11 latency period.</p> <p>12 A. I was -- yeah, I'm -- I'm</p> <p>13 trying to keep my train of thought</p> <p>14 steady. And I'm sure you want to keep</p> <p>15 yours steady as well.</p> <p>16 So I'm going to finish</p> <p>17 answering the first thing you asked and</p> <p>18 then we'll get to that.</p> <p>19 Q. Okay.</p> <p>20 A. So sample sizes were not</p> <p>21 large enough to detect the 20 to</p> <p>22 30 percent increased risk. And as you</p> <p>23 said, I keep going back to Berge, because</p> <p>24 they say yes, there was enough.</p>
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<p>1 ovarian cancer. Latency to what?</p> <p>2 Latency from what incident? There --</p> <p>3 latency from --</p> <p>4 Q. Do you have an opinion of</p> <p>5 the years?</p> <p>6 A. Excuse me?</p> <p>7 Q. Do you have an opinion of</p> <p>8 the years of latency --</p> <p>9 A. I -- I'm just letting --</p> <p>10 Q. -- of ovarian cancer?</p> <p>11 A. I'm saying that you --</p> <p>12 MS. CURRY: Object to the</p> <p>13 form. And were you done with your</p> <p>14 prior answer?</p> <p>15 THE WITNESS: No. Because I</p> <p>16 didn't go through the other part.</p> <p>17 And then -- but going back</p> <p>18 to the other one where they say --</p> <p>19 BY MS. GARBER:</p> <p>20 Q. Sorry, Doctor, can I</p> <p>21 interrupt you?</p> <p>22 Do you have an opinion --</p> <p>23 A. I'd like to finish my first</p> <p>24 answer.</p>	<p>1 If you add those three</p> <p>2 cohort studies, you had 99 percent chance</p> <p>3 of picking up what was in the</p> <p>4 case-control studies, but yet Taher</p> <p>5 says -- or, sorry, Health Canada says</p> <p>6 that there may not have been enough. But</p> <p>7 they -- and then they -- they quote Narod</p> <p>8 as opposed to quoting -- there's no</p> <p>9 mention of Berge saying that there was</p> <p>10 enough. There's just Narod's op Ed</p> <p>11 opinion in 2016 which was not based on a</p> <p>12 single study. So I didn't -- so I didn't</p> <p>13 agree with either one.</p> <p>14 Q. So the Narod paper is</p> <p>15 talking in the abstract about the design</p> <p>16 of cohort studies, and that you need a</p> <p>17 sufficient number to detect a low odds</p> <p>18 ratio.</p> <p>19 The Berge study is talking</p> <p>20 about their study, his study, right?</p> <p>21 A. Berge was a meta-analysis.</p> <p>22 Q. Yeah. And -- and they're</p> <p>23 talking about, for purposes of power,</p> <p>24 that study. Narod is talking about in</p>

<p style="text-align: right;">Page 330</p> <p>1 general when you look at cohort studies, 2 they have to have sufficient number of -- 3 of study participants or you are not 4 going to detect a small risk. 5 A. In the same way that I 6 wouldn't look at -- 7 MS. CURRY: Object to the 8 form. 9 THE WITNESS: -- 10 occupational exposure to asbestos 11 to answer the question of what 12 talc does when dusted on the 13 perineum, I wouldn't stick on a 14 hypothetical statement by Narod 15 when you actually have data from 16 women in the clinical scenario 17 that you're questioning, do you or 18 do you not have the power to 19 detect the level of -- the low 20 level of effect. 21 They are admitting it's a 22 low level. They are saying that 23 maybe it wasn't enough. But I'm 24 saying there's a study out there</p>	<p style="text-align: right;">Page 332</p> <p>1 assumptions get made over and over 2 and over of what the latency 3 period is. And you asked me then, 4 do I have an opinion on what the 5 latency period is. 6 And I can say that if you 7 had heavy occupational exposure 8 to -- I'll let you finish. 9 BY MS. GARBER: 10 Q. No. Carry on. Carry on. 11 A. No, I'll let you finish. 12 Q. I can do two things at once. 13 I can multitask. I'm listening. I'm 14 listening. 15 A. All right. So if you -- if 16 you're asking me what is the latency 17 period for someone making gas masks in a 18 factory, I would say it's probably 19 somewhere around 20 years, maybe 20 30 years. Hiroshima, you know, maybe 10 21 to 20 years. That's the question. 22 Q. So you have testified in a 23 prior case that ovarian cancer has a long 24 latency; is that true?</p>
<p style="text-align: right;">Page 331</p> <p>1 that says it was enough and gives 2 the explanation with the numbers. 3 It's not -- it's not cited 4 here. 5 BY MS. GARBER: 6 Q. Doctor, you recognize that 7 Health Canada is recognizing that the 8 latency for development of ovarian cancer 9 is an important issue in the cohort 10 designs, right? 11 MS. CURRY: Object to the 12 form. 13 THE WITNESS: I'm -- I'm not 14 requesting that. I'm questioning 15 what is the latency from. If you 16 assume that talc causes ovarian 17 cancer, what is the latency for 18 talc causing ovarian cancer? 19 No one knows. So any 20 extrapolation is an extrapolation 21 from another situation like an 22 atomic bomb, like in a heavy 23 occupational exposure. So there 24 is an assumption, and these</p>	<p style="text-align: right;">Page 333</p> <p>1 MS. CURRY: Object to the 2 form. 3 THE WITNESS: In those 4 situations. 5 BY MS. GARBER: 6 Q. Yeah. All right. 7 And you have testified that 8 it can be as long as 20 to 40 years, 9 correct? 10 A. It's possible, yes. Based 11 on the extrapolations I just mentioned. 12 Q. And you're aware of the 13 Purdie study from 2003 that indicated the 14 latency as likely 30 to 40 years, 15 correct? 16 A. Can you show me Purdie study 17 and I can see what they're relying on -- 18 Q. Sure. 19 A. -- and see what citation 20 they use, or if it's cited at all. 21 (Document marked for 22 identification as Exhibit 23 Holcomb-18.) 24 BY MS. GARBER:</p>

<p style="text-align: right;">Page 334</p> <p>1 Q. Let's mark as Exhibit 18. 2 The Purdie 2003 study. 3 Doctor, if you turn to Page 4 231. Following Footnote 23, it reads, 5 "With regard to the latency" -- 6 A. I'm sorry. 231. 7 Following -- you said -- 8 Q. Here. Look up here, Doctor. 9 A. Hold on one second. 10 Q. The authors state, "It is 11 likely that ovarian cancer has a 12 reasonable" -- 13 A. I'm sorry. Can you -- I 14 really want to read along with you. I 15 just don't see where you are. You said 16 231 is the page we're on? 17 Q. Yes. 18 A. Okay. Left? Right? 19 Q. Left-hand column. 20 A. Okay. Top of the page, 21 middle of the page, bottom? 22 Q. Right here. "It is likely 23 that ovarian cancer has a reasonably long 24 latency period between initiation and</p>	<p style="text-align: right;">Page 336</p> <p>1 bit it says -- couple lines, it says, 2 "Thus, the latency period of more 3 advanced malignant epithelial ovarian 4 cancer could be estimated to be 5 approximately 30 to 40 years." 6 A. "This time frame is 7 consistent with data from the Hiroshima 8 cohort." 9 Yes. They're doing what I 10 said. They're extrapolating from an 11 atomic bomb victim to figure out what the 12 latency would be for somebody putting 13 talcum powder in their underwear. 14 Q. And, Doctor, do you have any 15 reason or basis -- strike that. 16 Do you have any basis to 17 claim that the latency period would be 18 any different for talcum powder exposure 19 and development of ovarian cancer? 20 A. In the totality of my review 21 of the literature, I don't see sufficient 22 evidence to consider that talcum powder 23 even causes ovarian cancer. So I don't 24 have a carcinogen to start off with to</p>
<p style="text-align: right;">Page 335</p> <p>1 manifestation of established disease, and 2 this is exacerbated by unusually late 3 clinical detection of the disease." 4 A. And that -- 5 Q. And you agree -- you 6 disagree with that? 7 MS. CURRY: Object to the 8 form. I think you said unusually. 9 The word is usually. 10 BY MS. GARBER: 11 Q. Do you disagree with that 12 statement? 13 A. What I -- I was curious to 14 see what the citation was. I would say 15 that in other situations with a known 16 carcinogen, like the radiation from an 17 atomic bomb or heavy occupational 18 exposure, in those situations there is a 19 long latency. 20 Q. And so, Doctor -- 21 A. Here there's no citations. 22 So I'm not sure what the statement is 23 based on. 24 Q. So, Doctor, if you go down a</p>	<p style="text-align: right;">Page 337</p> <p>1 start estimating latency. 2 What they're saying is, if 3 you extrapolate from the few situations 4 that we know that cause ovarian cancer, 5 they have a long latency. So the 6 assumption is, well, this must have a 7 long latency period too. 8 They've given no citation 9 why that it is likely. It's just, well, 10 it happened here; it must be the same 11 here. 12 Q. So let's talk about this. 13 You're a study designer. And you really 14 want to find out if talcum powder 15 exposure causes ovarian cancer. And you 16 know that there's all this data out here 17 that ovarian cancer has a long latency. 18 A. It's all this data out here? 19 Q. Yeah. I'm giving you a 20 hypothetical. There's data from 21 radiation and other exposures. Okay? 22 A. Okay. 23 Q. And the latency period is 24 about 20 to 40 years. Are you going to</p>

<p style="text-align: right;">Page 338</p> <p>1 design a study that is going to follow 2 women 10 or six or 15 years when you know 3 that potentially it could be 20, 4 40 years? You're not going to detect all 5 the risk, are you? 6 MS. CURRY: Object to the 7 form. 8 THE WITNESS: I think 9 there's a misconception between 10 how long you follow a patient and 11 latency. 12 Latency doesn't start when 13 you designed a study and she 14 signed the consent form. Latency 15 started from exposure to 16 development of a cancer. 17 So if somebody, let's say, 18 on the woman's health initiative, 19 is 55 at the time that she goes 20 on, and you're trying to convince 21 me earlier that this is this 22 habitual thing that she does, that 23 she doesn't even think about it. 24 Cramer 2016 says she likely</p>	<p style="text-align: right;">Page 340</p> <p>1 ovarian cancer is the biologic 2 plausibility and where it falls 3 apart on dose-response. 4 So I'm saying, just because 5 you followed somebody from 6 12 years, doesn't mean that they 7 started using talc the day before 8 she signed consent. 9 And so no, if you're talking 10 about a behavior that likely 11 starts in the 20s, and you're 12 trying to design a study that's 13 enrolling women who started at 50, 14 yeah, 12 years should be enough. 15 BY MS. GARBER: 16 Q. Doctor, in the studies 17 themselves, do they indicate when the 18 women started using the talc, the age at 19 which they started using the talc? 20 MS. CURRY: Object to the 21 form. 22 THE WITNESS: Again, no. I 23 am referring to what Dr. Cramer 24 believes.</p>
<p style="text-align: right;">Page 339</p> <p>1 started in her 20s. She may be 2 decades in by the time that you're 3 following her. 4 So if somebody has been 5 using talc for 20 years and then 6 you follow them for another 12, or 7 in the case of Gates, they were 8 followed for 24 years, and they 9 showed even women who had greater 10 than 20 years' exposure didn't 11 have an increased risk. 12 The other problem with this 13 concept that you're having, like 14 you're missing the latency, you 15 would expect that even in the 16 studies that are showing an 17 effect, that you should be able to 18 show a dose-response curve with 19 duration of use. And it's an 20 inconsistent thing. And all the 21 data, it's inconsistent. 22 There's -- one of the 23 struggles of saying that this 24 is -- that talc is a cause of</p>	<p style="text-align: right;">Page 341</p> <p>1 BY MS. GARBER: 2 Q. You're making assumptions 3 based on one given study -- 4 MS. CURRY: Objection. 5 BY MS. GARBER: 6 Q. -- as to when the women were 7 exposed to talc. Isn't that true? 8 MS. CURRY: Object to the 9 form. 10 THE WITNESS: Honest -- no. 11 Honestly it's -- it's also 12 personal experience with just 13 people in my family who have used 14 talc. It's been -- it hasn't been 15 my experience. I -- I don't know 16 anybody -- 17 BY MS. GARBER: 18 Q. That's not scientific, 19 Doctor, is it? 20 A. It's not. No. But you 21 asked me what it's based on. I'm saying 22 I don't know anybody who starts using 23 talc and never did it before and they 24 started at 50.</p>

<p style="text-align: right;">Page 342</p> <p>1 Q. Okay. And if you were going 2 to take my history if I were one of your 3 patients and you wanted to find out about 4 my risk for developing lung cancer, you 5 wanted to find out about my smoking 6 history, ask me what questions you 7 would -- and tell me what questions you 8 would ask me. 9 A. I would ask -- 10 MS. CURRY: Object to the 11 form. 12 BY MS. GARBER: 13 Q. About my exposure? 14 A. I would ask when you started 15 smoking cigarettes. How many cigarettes 16 a day do you smoke. 17 Q. What else? 18 A. Have you been exposed to 19 asbestos. I know that's a co-carcinogen. 20 Things like that. 21 Q. So when I started. 22 A. Mm-hmm. 23 Q. And how -- 24 A. Do you still smoke today?</p>	<p style="text-align: right;">Page 344</p> <p>1 Q. Doctor, I'm going to mark 2 the Gertig 2000 study -- 3 (Document marked for 4 identification as Exhibit 5 Holcomb-19.) 6 BY MS. GARBER: 7 Q. -- as -- I'm sorry -- as 8 Exhibit 19. 9 Doctor, a study limitation 10 of the Nurses' Health Study is that the 11 authors only captured talcum powder 12 exposure one time in 1982 via 13 questionnaire, right? 14 A. It's true. 15 Q. Another limitation is the 16 study's exposure metric only captured 17 frequency of use, and not cumulative use, 18 correct? 19 MS. CURRY: Object to the 20 form. 21 THE WITNESS: Yes. 22 BY MS. GARBER: 23 Q. And Table 2 shows that the 24 talc use in the perineum is never less</p>
<p style="text-align: right;">Page 343</p> <p>1 Q. -- how frequently I smoke? 2 A. Mm-hmm. 3 Q. And so that's a two-sided 4 metric, right, frequency and duration. 5 A. Right. 6 Q. Right? And that's important 7 to determine the true risk? 8 MS. CURRY: Object to the 9 form. 10 BY MS. GARBER: 11 Q. Right? 12 MS. CURRY: Object to the 13 form. 14 THE WITNESS: That's true. 15 MS. GARBER: Okay. Let's 16 take a break. 17 THE VIDEOGRAPHER: Okay. 18 Stand by, please. The time is 19 3:28 p.m. Off the record. 20 (Short break.) 21 THE VIDEOGRAPHER: Okay. We 22 are back on the record. The time 23 is 3:55 p.m. 24 BY MS. GARBER:</p>	<p style="text-align: right;">Page 345</p> <p>1 than one week, one to -- one to six -- 2 sorry. 3 Less than one time per week, 4 one to six times per week, and daily, 5 correct, is that your understanding? 6 A. Yes. 7 Q. And an adequate 8 dose-response cannot be determined by 9 just measuring frequency without the 10 length of use, correct? 11 MS. CURRY: Object to the 12 form. 13 BY MS. GARBER: 14 Q. Do you agree with that? 15 A. No, I don't agree. 16 Q. Okay. Because the 17 assessment was only made in 1982, many of 18 the women may have stopped using talcum 19 powder products over the study period. 20 Do you agree with that? 21 A. Not likely. 22 Q. Do you agree that there were 23 only 78,630 women who formed the cohort 24 analysis?</p>

<p style="text-align: right;">Page 346</p> <p>1 A. Yes.</p> <p>2 Q. That's a far cry from the</p> <p>3 requisite 200 of the Narod study,</p> <p>4 correct?</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: I've already</p> <p>8 addressed that in the past.</p> <p>9 BY MS. GARBER:</p> <p>10 Q. All right. You didn't --</p> <p>11 and didn't you testify in the Ingham case</p> <p>12 that we don't know if there was a proper</p> <p>13 control group because we don't know if</p> <p>14 the control group was exposed to talcum</p> <p>15 powder products via diapering?</p> <p>16 MS. CURRY: Object to the</p> <p>17 form.</p> <p>18 THE WITNESS: You'd have to</p> <p>19 show me my --</p> <p>20 BY MS. GARBER:</p> <p>21 Q. You don't recall testifying</p> <p>22 about that?</p> <p>23 A. We talked -- I'd be happy to</p> <p>24 read through it again. I don't have an</p>	<p style="text-align: right;">Page 348</p> <p>1 under the multivariant relative risk,</p> <p>2 right?</p> <p>3 A. Yes. Earlier you had said</p> <p>4 reference. So yes. It's 1.09.</p> <p>5 Q. That's an elevated risk,</p> <p>6 right?</p> <p>7 THE VIDEOGRAPHER: Can you</p> <p>8 give me one second. Sorry. Just</p> <p>9 lost power in my camera for some</p> <p>10 reason.</p> <p>11 Stand by. The time is</p> <p>12 3:59 p.m. Off the record.</p> <p>13 (Brief pause.)</p> <p>14 THE VIDEOGRAPHER: Okay. We</p> <p>15 are back on the record. The time</p> <p>16 is 4:00 p.m.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. And, Doctor, before that</p> <p>19 break, I was just asking you about ever</p> <p>20 use of perineal talc -- ever perineal</p> <p>21 talc use. And I asked you, is a</p> <p>22 multivariant relative risk 1.09 with a</p> <p>23 confidence interval of 0.86 to 1.37. And</p> <p>24 you agreed that that's what it is,</p>
<p style="text-align: right;">Page 347</p> <p>1 independent memory of that.</p> <p>2 Q. All right. The Gertig paper</p> <p>3 provided a result for ever use of talcum</p> <p>4 powder products on the perineum for</p> <p>5 ovarian cancer at Table 2. Do you recall</p> <p>6 that?</p> <p>7 A. Yes.</p> <p>8 Q. And I'll just show you</p> <p>9 Table 2 here. Table 2, ever perineal</p> <p>10 talc use, yes, no.</p> <p>11 Correct?</p> <p>12 A. Correct.</p> <p>13 Q. All right. And the point</p> <p>14 estimate for ever use of talc, talc</p> <p>15 powder products and EOC was 1.9 with a</p> <p>16 confidence interval of 0.86 to 1.37; is</p> <p>17 that correct?</p> <p>18 A. No. The reference is by</p> <p>19 Definition 1.</p> <p>20 Q. The ever use.</p> <p>21 A. I'm sorry.</p> <p>22 Q. The ever use --</p> <p>23 A. Yes.</p> <p>24 Q. -- point estimate was 0.09</p>	<p style="text-align: right;">Page 349</p> <p>1 correct?</p> <p>2 A. Yes.</p> <p>3 Q. That's an elevated risk,</p> <p>4 correct?</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: No. That's --</p> <p>8 you can't say for sure whether</p> <p>9 that's an elevated risk. Because</p> <p>10 the true risk estimate is</p> <p>11 somewhere between having a 14 --</p> <p>12 yeah, 14 percent reduction in risk</p> <p>13 to a 37 percent increase in risk.</p> <p>14 And the true risk is somewhere in</p> <p>15 there. Where exactly the true</p> <p>16 risk estimate I'm not sure.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. The point estimate, the</p> <p>19 point estimate is elevated at 1.09, true?</p> <p>20 MS. CURRY: Object to the</p> <p>21 form.</p> <p>22 THE WITNESS: The point</p> <p>23 estimate is elevated, yes.</p> <p>24 BY MS. GARBER:</p>

<p style="text-align: right;">Page 350</p> <p>1 Q. And the follow-up study 2 period was just 14 years, correct, here 3 at Table 2, it sets forth a follow-up 4 period. 5 If you look here at the 6 table, you see the study period? 7 A. Okay -- 8 Q. It's 14 years, right? 9 A. One second. I'm just doing 10 the math. I went to public school. 11 Q. Okay. I went to a private 12 school. But I'm not good at math either. 13 A. Yes, 14 years. 14 Q. Okay. And with regard to 15 that follow-up period at Page 251, 16 Doctor, the authors note the limitation 17 in that they state, "In that regard, in 18 the peer-reviewed paper" -- 19 MS. CURRY: I'm sorry, where 20 are you -- 21 THE WITNESS: I'm sorry, I 22 don't know where you're reading. 23 BY MS. GARBER: 24 Q. I'm reading at the top of</p>	<p style="text-align: right;">Page 352</p> <p>1 limitations that I just went through with 2 you are cited or addressed in your expert 3 report; is that true? 4 A. That's true. I did not 5 consider that a -- while a potential 6 study limitation, I sort of -- I looked 7 at the literature in totality, and other 8 papers suggested that while they could 9 not account for it, it's very likely that 10 this was a practice that began early in 11 the women's lives. 12 And so for completeness' 13 sake, they are mentioning this as a 14 limitation. But the follow-up period, as 15 I mentioned earlier, of 14 years would be 16 too short to pick up a latency of 17 15 years if the woman just started using 18 talc the day she signed the consent. But 19 if she had used talc for just three years 20 before signing the consent, it would not 21 have been a weakness. 22 So I respect them mentioning 23 this for completeness' sake. But the 24 likelihood of them having not enough time</p>
<p style="text-align: right;">Page 351</p> <p>1 251, right-hand column. The authors 2 state, "Our relatively short follow-up 3 period may be inadequate to detect an 4 association if the latency for 5 development of ovarian cancer is more 6 than 15 years." 7 Did I read that correctly? 8 A. You read that correctly. 9 Q. So the authors are noting 10 that study limitation, correct? 11 A. Yes, they did. 12 Q. Also, at 251, the authors in 13 the middle column note that there are 14 several important study limitations, 15 correct? 16 A. That's what it says, yes. 17 Q. The authors also note that 18 they cannot determine the age at which 19 women began using talc or the duration of 20 their use. That's what they say under 21 the heading of "Several Important 22 Limitations in Our Study," right? 23 A. Yes. 24 Q. Okay. None of those study</p>	<p style="text-align: right;">Page 353</p> <p>1 for latency -- because latency again is 2 not follow-up time, it's exposure to 3 diagnosis -- I think it's unlikely that 4 they would not have the latency if you 5 extrapolated from an atomic bomb victim. 6 Q. Did I ask you why those 7 aren't -- those study limitations aren't 8 contained within your expert report? 9 A. No. You asked me if it was 10 mentioned. And I was just explaining why 11 it wasn't. 12 Q. Try to just answer my 13 questions, if you can, Doctor. I really 14 appreciate it. 15 The relative risk for ever 16 use of talcum powder products in serous 17 invasive ovarian cancer was elevated at 18 1.4 with a confidence interval of 1.02 to 19 1.91, correct? 20 A. It depends on what type of 21 use you're talking about. Because 22 strangely enough, in this study, for some 23 reason, if you use talcum powder on your 24 perineum, but you also used it on</p>

<p style="text-align: right;">Page 354</p> <p>1 sanitary napkins, an increased exposure, 2 the point estimates are actually 3 protective, there's .89, of course 4 crossing one, and .90. So -- 5 Q. Doctor, what was my 6 question? 7 A. You said ever use of what 8 type. 9 MS. CURRY: Did you complete 10 your thought? 11 BY MS. GARBER: 12 Q. So, Doctor, you'll get a 13 chance to answer questions that counsel 14 for Johnson & Johnson may want to ask 15 you. 16 My question was, is the odds 17 ratio for serous ovarian cancer 1.4 with 18 a confidence interval of 1.02 to 1.91? 19 Is that what's reported in the study? 20 A. I'm sorry. One second, 21 ma'am. For multivariate, it's 1.4, yes. 22 Q. Okay. And serous ovarian 23 cancer, as you testified several hours 24 ago, is a type of ovarian cancer,</p>	<p style="text-align: right;">Page 356</p> <p>1 So if Gates has 24 years of 2 follow-up, I would look at Gates 3 as the answer to this. 4 So that's exactly what 5 happened in this situation. These 6 same group of women followed years 7 later, closer to covering the 8 latency that you were concerned 9 about, this risk went away. 10 And so I don't think I would 11 report twice on the same cohort of 12 patients. 13 MS. GARBER: Objection. 14 Motion to strike as nonresponsive. 15 BY MS. GARBER: 16 Q. Doctor, you didn't cite in 17 the four corners of your expert report 18 that the Gertig study showed an increased 19 risk in serous ovarian cancer, did you? 20 MS. CURRY: Object to the 21 form. 22 THE WITNESS: I just 23 explained why I made the general 24 statement --</p>
<p style="text-align: right;">Page 355</p> <p>1 correct? 2 A. The most predominate type, 3 yes. 4 Q. Okay. And so when you say 5 in your expert report that none of the 6 cohort studies showed an increased risk 7 in ovarian cancer, that was an error, 8 right? Because -- 9 A. No. 10 Q. -- serous ovarian cancer is 11 a form of ovarian cancer, true? 12 MS. CURRY: Object to the 13 form. 14 THE WITNESS: No. I don't 15 see that as an error, because if I 16 have two studies of the same 17 population, one with 14 years of 18 follow-up, which you seem to take 19 a lot of issue with, and one with 20 24 years follow-up, I was under 21 impression with your criticisms of 22 the study that the one with the 23 longer follow-up would be 24 considered more accurate.</p>	<p style="text-align: right;">Page 357</p> <p>1 BY MS. GARBER: 2 Q. I didn't ask you why. My 3 question was very clear and precise. 4 MS. SHARKO: You can't 5 interrupt him. 6 BY MS. GARBER: 7 Q. Did you -- did you in the 8 four corners of your report state what 9 the results were for serous ovarian 10 cancer in Gertig, yes or no? 11 A. Let me take a look and see. 12 Yes, I did mention it. 13 Q. And, Doctor, do you state at 14 the top of Page 11 that the Gates 2010 15 reversed the finding of the only cohort 16 study reporting the association between 17 genital talc and epithelial ovarian 18 cancer? 19 A. Yes. 20 Q. What is your basis for that? 21 A. Pretty much as I stated in 22 the report, that you said that I didn't 23 state, is that there was a modest 24 increased risk for invasive serous</p>

<p style="text-align: right;">Page 358</p> <p>1 ovarian cancer in the Gertig study, which 2 was stated on the bottom of Page 10 3 clearly. And that -- I can read it to 4 you, "In 2010 Gates, et al." -- 5 Q. You don't have to read it, 6 Doctor. I can read it for myself. Let 7 me withdraw that. 8 Doctor, did the Gates 9 authors state that their study reversed 10 the findings of the Gertig 2000 study? 11 MS. CURRY: Object to the 12 form. 13 THE WITNESS: The results 14 did, yes. 15 BY MS. GARBER: 16 Q. Did the study authors say 17 our data reversed the findings, used that 18 phrase, "reversed the findings" of the 19 Gertig study? 20 A. I'd have to read through the 21 study to see if it was mentioned. 22 Q. Is it epidemiologically 23 sound to say, "My study reversed the 24 findings of a prior study"?</p>	<p style="text-align: right;">Page 360</p> <p>1 Q. In fact, there are 2 epidemiological studies as recent as 3 2018, that use the Gertig study in their 4 meta-analysis, right, the Penninkilampi 5 for one? 6 A. That is true. And a 7 weakness of the study. 8 Q. We're going to get to that. 9 I'm sure that's your opinion. But that 10 study relies on the Gertig study, in 11 other words, if they are including it in 12 their meta-analysis, surely those study 13 authors aren't thinking that the results 14 are reversed by Gates, correct? 15 A. And -- 16 MS. CURRY: Object to the 17 form. 18 THE WITNESS: -- and by not 19 including Gates, they will come to 20 a spurious result. They will 21 think that maybe a prospective 22 study supports that there's an 23 increased risk. Where if they had 24 done -- and this is what I was</p>
<p style="text-align: right;">Page 359</p> <p>1 MS. CURRY: Object to the 2 form. 3 BY MS. GARBER: 4 Q. Have you ever heard that 5 done? 6 A. I use the term. So yes, 7 I've heard it done. 8 Q. It's your turn -- it's your 9 term? 10 MS. CURRY: Object to the 11 form. 12 THE WITNESS: I use it in my 13 report, yes. 14 BY MS. GARBER: 15 Q. Have you seen any other 16 study authors who say, in all of 17 epidemiological literature that you've 18 looked at, that says that the Gates 2010 19 study reversed the findings of the Gertig 20 2000 study? 21 A. I could not tell you that 22 out of all the epidemiologic studies that 23 I've read whether or not that term was 24 used.</p>	<p style="text-align: right;">Page 361</p> <p>1 saying about meta-analysis. 2 Not only do you have to 3 worry about heterogeneity. And we 4 spent enough time talking about 5 that. But selection of the 6 studies that go into your 7 meta-analysis are very, very 8 important. And one -- and 9 selection bias is -- is a very 10 important thing that you have to 11 watch out for as well. 12 So the fact that 13 Penninkilampi, as late as that 14 study just came out, was unable to 15 figure out that that same cohort 16 had been followed for ten years 17 longer, we -- strengthening the 18 study by increasing the follow-up 19 time, all the criticisms you just 20 gave me about Gertig is now 21 strengthened in Gates, and yet you 22 choose to use the number from 23 Gertig. I'd have to ask why would 24 somebody who's seeking the truth</p>

<p style="text-align: right;">Page 362</p> <p>1 do that.</p> <p>2 BY MS. GARBER:</p> <p>3 Q. I'm going to show you some</p> <p>4 data and see if we can figure that out</p> <p>5 together.</p> <p>6 You don't have any basis to</p> <p>7 conclude that the Penninkilampi authors</p> <p>8 didn't know about the Gates 2010 data,</p> <p>9 did you?</p> <p>10 MS. CURRY: Object to the</p> <p>11 form.</p> <p>12 THE WITNESS: I'm saying</p> <p>13 that I don't see in their</p> <p>14 definitions, including the studies</p> <p>15 that they included, the search</p> <p>16 terms that they included, a reason</p> <p>17 why they would negate Gates.</p> <p>18 BY MS. GARBER:</p> <p>19 Q. Do you know whether or not</p> <p>20 the Taher authors included the Gertig or</p> <p>21 the Gates study?</p> <p>22 A. I believe they included</p> <p>23 both. But if I can look at it. Because</p> <p>24 earlier that was where I was telling you</p>	<p style="text-align: right;">Page 364</p> <p>1 A. Correct.</p> <p>2 Q. And the age of the women in</p> <p>3 the Gates 2010 were younger than the</p> <p>4 study women in the Gertig?</p> <p>5 MS. CURRY: Objection to</p> <p>6 form.</p> <p>7 BY MS. GARBER:</p> <p>8 Q. Is that true?</p> <p>9 A. I'm sorry, say the --</p> <p>10 Q. Sorry. The age of the women</p> <p>11 in Gates 2010 were younger than the</p> <p>12 Gertig women, correct?</p> <p>13 MS. CURRY: Object to form.</p> <p>14 THE WITNESS: You mean the</p> <p>15 same women that were followed</p> <p>16 in -- in Gertig, by the time they</p> <p>17 saw them ten years later they were</p> <p>18 younger?</p> <p>19 BY MS. GARBER:</p> <p>20 Q. Is there a disparity in the</p> <p>21 age of the two cohorts?</p> <p>22 A. Between Gertig and Gates.</p> <p>23 MS. CURRY: Not -- I</p> <p>24 think --</p>
<p style="text-align: right;">Page 363</p> <p>1 that they are saying Gates shows a</p> <p>2 possible increased risk of cancer in</p> <p>3 their table, where -- and I'm talking</p> <p>4 about on the -- the -- can I pull out</p> <p>5 Taher since you bring it up?</p> <p>6 Q. That's okay. We're going</p> <p>7 to -- we're going to get there in a</p> <p>8 minute --</p> <p>9 A. Okay.</p> <p>10 Q. -- when I'm done with these</p> <p>11 cohorts, so...</p> <p>12 All right. Let's -- let's</p> <p>13 talk about Gates 2010.</p> <p>14 (Document marked for</p> <p>15 identification as Exhibit</p> <p>16 Holcomb-20.)</p> <p>17 BY MS. GARBER:</p> <p>18 Q. I'll mark as Exhibit 20, the</p> <p>19 Gates 2010 publication:</p> <p>20 Doctor, the Gates 2010</p> <p>21 article was a publication of the</p> <p>22 follow-up to the Nurses' Health Study I</p> <p>23 that was published as Gertig in the year</p> <p>24 2000, correct?</p>	<p style="text-align: right;">Page 365</p> <p>1 THE WITNESS: I'm a -- I'm a</p> <p>2 little confused by your question.</p> <p>3 BY MS. GARBER:</p> <p>4 Q. Okay. Do you understand</p> <p>5 that the women who were included in the</p> <p>6 Gates study were younger than the women</p> <p>7 in the Gertig study?</p> <p>8 MS. CURRY: Object to the</p> <p>9 form.</p> <p>10 BY MS. GARBER:</p> <p>11 Q. Maybe I'll show you --</p> <p>12 A. Yes.</p> <p>13 Q. -- and then you can maybe</p> <p>14 help me understand.</p> <p>15 A. Because I don't need to read</p> <p>16 through.</p> <p>17 Q. Doctor, if you could look</p> <p>18 right here?</p> <p>19 A. Sure.</p> <p>20 Q. On the first page. Do you</p> <p>21 see where it says, "The Nurses' Health</p> <p>22 Study was established in 1976 and the</p> <p>23 Nurses' Health Study II in 1989 amongst</p> <p>24 121,700 U.S. women" -- "U.S. female</p>

<p style="text-align: right;">Page 366</p> <p>1 registered nurses aged 30 to 55 and 2 116,430 U.S. female registered nurses 3 aged 25 to 42 respectively." 4 So the two cohorts are 5 different ages, are they not? 6 MS. CURRY: Object to the 7 form. 8 THE WITNESS: I'm sorry, I'm 9 just taking my time to read 10 through this again. 11 BY MS. GARBER: 12 Q. Mm-hmm. Do you need time to 13 study? We'll go off the record if you 14 do. 15 A. No. That seems to be the 16 case, yes. 17 Q. Okay. Okay. In the Gates 18 study they were not asked questions about 19 it -- about their talc use. Instead, the 20 data about their talc exposure was 21 carried over from the Gertig one-time 22 1982 questionnaire. Do you agree with 23 that? 24 A. It's my understanding that</p>	<p style="text-align: right;">Page 368</p> <p>1 the metric is talc use greater than once 2 a week versus less than once a week. 3 It's not ever never, correct? 4 A. Correct. 5 Q. That's a different metric 6 from Gertig, right? 7 A. Different metric, yes. 8 Q. Thank you. 9 A. Valid -- valid change 10 though. 11 Q. Okay. But different 12 nonetheless, right? 13 A. Different and valid. 14 Q. While the Gates 2010 study 15 followed women for ten more years, the 16 follow-up is, in total, 26 years, 17 correct? 18 A. Correct. 19 Q. And we don't know when the 20 women were exposed, at what age they 21 began using talc, correct, the study 22 doesn't -- either study doesn't tell us 23 that, correct? 24 A. No.</p>
<p style="text-align: right;">Page 367</p> <p>1 the NHSII population was not queried on 2 their use of talc because it was a 3 one-time questionnaire in 1982. 4 So yes, the NHSII 5 population is younger than the NHSI, but 6 the question of the effect of talc on 7 ovarian cancer was in -- only in patients 8 that have been asked about ovarian cancer 9 exposure. 10 Q. Mm-hmm. And that's a study 11 limitation, correct? 12 A. No. 13 Q. Okay. In the Gates 2010 the 14 authors provide no results for ever use 15 of talcum powder product on the perineum 16 for ovarian cancer; is that true? 17 A. No. 18 Q. It's not true? 19 A. No. Hold on one second. 20 Sorry. I have to go and find. 21 Q. Doctor, if you turn to 22 Table 4 -- 23 A. Yes. 24 Q. -- Page 50. You see that</p>	<p style="text-align: right;">Page 369</p> <p>1 Q. And assuming the latency for 2 ovarian cancer is 30 to 40 years, that 3 study period would be inadequate to 4 accurately detect all of the women with 5 ovarian cancer. Would you agree with 6 that? 7 MS. CURRY: Object to the 8 form. 9 THE WITNESS: No. I think 10 if you -- if you can stretch to 11 the assumption that the latency 12 for something that's not even 13 proven carcinogenic is the same as 14 somebody working in a gas mask 15 factory, I think you can 16 equally -- in fact, it takes less 17 of a stretch to believe that the 18 women didn't start talc use four 19 years before they went on the 20 study, because that is not what 21 most people believe, even 22 Dr. Cramer doesn't believe most 23 women start that late in life. 24 BY MS. GARBER:</p>

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<p>1 Q. But you have no data as to 2 when the women in this study actually 3 started talc use, do you? 4 A. No. 5 Q. The Gates relative risk for 6 women who use talc greater than once a 7 week and serous ovarian cancer is 1.06 8 with a confidence interval of 0.84 to 9 1.35. Do you agree with that? 10 A. Sorry, one second. Yes. 11 Q. And again, under your 12 definition of positive, you do not think 13 that is a positive finding, correct? 14 A. Positive and not 15 statistically significant, yes. 16 Q. You do think it's positive, 17 but not statistically significant? 18 MS. CURRY: Object to the 19 form. 20 THE WITNESS: If you're 21 asking me about directionality, 22 it's obvious. Because 23 directionality it's positive. 24 I do not consider it a</p>	<p>1 directionality. And that's why I said 2 it's obviously directionality positive. 3 And if you're asking me is 4 it a valid study, one that I would rely 5 on with a degree of medical certainty, I 6 would say no, because I'm one of those 7 old school doctors who still believe that 8 95 percent confidence intervals are 9 important. 10 Q. If the Court asked you if 11 the Gertig serous ovarian cancer in the 12 Gates study was positive or negative, how 13 would you reply? 14 A. I would say it's a negative. 15 Q. Okay. And I think we 16 already covered this. But you can't cite 17 me to any authority, can you, that the 18 Gates study reverses the Gertig finding, 19 correct? 20 MS. CURRY: Object to the 21 form. 22 THE WITNESS: Well, I'm here 23 giving my testimony. So I'm going 24 to assume the mantle of an</p>
Page 371	Page 373
<p>1 significant or valid finding 2 because I can't say for 90 3 percent, 95 percent accuracy, that 4 the true risk estimate lies above 5 one. 6 BY MS. GARBER: 7 Q. So, Doctor, earlier today 8 you told me that where relative risk was 9 greater than one, but not statistically 10 significant, that was a negative finding. 11 Are you now changing your 12 definition of positive versus negative? 13 A. I think you just misstated 14 my statement, because that's not -- 15 doesn't make sense what you just said. 16 Q. Okay. I thought you told me 17 earlier today when I asked you what a 18 negative study was, it included an odds 19 ratio that could be greater than one but 20 if it wasn't statistically significant, 21 it was a negative study in your opinion? 22 A. In this term, the question 23 that you just asked me when you were 24 asked positive, I thought you were asking</p>	<p>1 authority. And I would say if 2 this group is followed for ten 3 years longer -- and I'll add the 4 caveat that women who used it for 5 less than one week had the same 6 risk in a study just two years 7 before this, as women who had 8 never used. 9 So if you go to Gates 2008, 10 you will see for this study cohort 11 there's no reason to believe that 12 it's not a valid thing to lump 13 somebody who used it in less than 14 one week with never used, based on 15 the Gates 2008 data. 16 So, yes, I would say this 17 1.4 that was found in Gertig is 18 not -- is no longer here. 19 And so in my estimation, 20 this reverses the findings. This 21 says in the same population of 22 women followed longer, the 23 increased risk went away. 24 BY MS. GARBER:</p>

<p style="text-align: right;">Page 374</p> <p>1 Q. The study authors, again, do 2 not say that, correct? 3 A. I'd have to -- 4 Q. They don't say it reverses? 5 A. I don't remember. I'd have 6 to read through the whole discussion 7 section for you. 8 Q. Okay. And, Doctor, as to 9 the Houghton study, the WHI study, you 10 read that one, right? 11 A. Yes. 12 Q. You say in your report, at 13 Page 11 in sort of the middle of the 14 page, that there was no statistically 15 significant association between use of 16 genital talc and the development of 17 ovarian cancer for ever users? 18 A. I'm sorry. The page again? 19 Q. Page 11. 20 A. Yes. 21 Q. And to make that statement, 22 there is -- 23 A. I'm still looking for it. 24 One second.</p>	<p style="text-align: right;">Page 376</p> <p>1 BY MS. GARBER: 2 Q. And what was the exposure 3 metric in the Houghton study? 4 A. There was a question at 5 baseline with, "Have you ever used powder 6 on your private parts/genital areas?" 7 And then respondents responding yes, were 8 then asked to identify the duration of 9 use. It was less than one year, one to 10 four years, five to nine years, and all 11 the way up to greater than 20 years. 12 Q. And, Doctor, that's -- 13 that's a duration of use -- 14 A. Right. 15 Q. -- assessment, right? 16 A. Yes. 17 Q. And that doesn't take into 18 consideration frequency of use, right? 19 A. No. 20 Q. All right. And then the 21 Houghton authors state that the Nurses' 22 Health Study found that there was a 23 40 percent increase in the risk with a 24 confidence interval of 1.02 to 1.91?</p>
<p style="text-align: right;">Page 375</p> <p>1 Q. It's in the middle of the 2 page. 3 A. Can you repeat the statement 4 that you said I'm looking for. 5 Q. In your expert report at 6 Page 11 as to the Houghton study -- 7 A. Yes. 8 Q. -- you indicate that there 9 was no statistically significant 10 association. 11 A. I'm looking for the term 12 that you're saying. 13 Q. That's okay, Doctor. 14 Do you know what the sample 15 size was in the WHI study? 16 A. I think it was about 61,000. 17 Q. And based on the relative 18 small size, that's a study limitation of 19 the Houghton study, correct? 20 MS. CURRY: Object to the 21 form. 22 THE WITNESS: As taken in a 23 vacuum as an individual study, 24 yes.</p>	<p style="text-align: right;">Page 377</p> <p>1 A. I'm not sure where you're 2 looking. 3 Q. Okay. Doctor, if you look 4 at the right-hand -- yeah. If you look 5 at the first page, the right-hand column. 6 MS. CURRY: Which study? 7 Sorry. 8 MS. GARBER: Houghton. 9 THE WITNESS: Yeah, but we 10 don't -- 11 MS. CURRY: You haven't 12 marked it as an exhibit. 13 MS. GARBER: Oh, I'm sorry, 14 you guys. 15 (Document marked for 16 identification as Exhibit 17 Holcomb-21.) 18 BY MS. GARBER: 19 Q. Okay. Let's mark the 20 Houghton 2014 study. Doctor, if you look 21 at the right-hand column, here. 22 MS. SHARKO: What exhibit is 23 this? 24 MS. GARBER: What?</p>

<p style="text-align: right;">Page 378</p> <p>1 MS. CURRY: 21. 2 MS. SHARKO: Oh, 21? Okay. 3 BY MS. GARBER: 4 Q. Doctor, do you see where I'm 5 marking right here, on the right-hand 6 side? 7 A. Yes. 8 Q. The -- the sentence begins, 9 "In the Nurses' Health Study (NHS) 10 cohort, no overall association was found 11 between the use of perineal powder and 12 epithelial ovarian cancer" -- and it 13 cites the risk -- "or serous ovarian 14 cancer," and it cites the odds ratio. It 15 goes on to say, "However, there was a 16 40 percent with a 95 percent confidence 17 interval of 1.02 to 1.91 increased risk 18 for serous invasive ovarian cancer with 19 ever perineal use, which comprises 20 86 percent of the serous ovarian cancers 21 in the cohort." 22 Did I read that correctly? 23 A. You read it correctly. 24 Q. And that cites to the Gertig</p>	<p style="text-align: right;">Page 380</p> <p>1 date, there has only been one 2 prospective study conducted the 3 powder use and risk of ovarian 4 cancer," and then only cite 5 Gertig, which in fact to that 6 date, there had been two studies. 7 If you don't want to say one 8 reversed it. Then you have to at 9 least admit that there was two 10 studies. It was Gertig and Gates. 11 So the fact that they made that 12 mistake from the beginning of that 13 paragraph and follow it through 14 with only talking about Gertig, 15 yes, you're accurate -- you read 16 perfectly right what they said. 17 But my point is that that's not an 18 accurate statement. There was 19 more than one. 20 BY MS. GARBER: 21 Q. So Nurses' Health Study was 22 one study, right, with two publications? 23 A. No, I think that if you are 24 talking about how many studies,</p>
<p style="text-align: right;">Page 379</p> <p>1 study, right? 2 A. Yes. The beginning of that 3 paragraph says, "To date there has only 4 been one prospective study conducted." 5 This is 2013. And we've already 6 established there was a follow-up to that 7 study in 2010 that wasn't included here. 8 Q. And that's precisely my 9 point. So here, the Houghton authors are 10 citing to the Gertig study, not the Gates 11 study, correct? 12 A. That's correct. And I would 13 consider it inappropriate not to mention 14 that follow-up information. 15 Q. The authors don't say that 16 the Gates 2010 reversed the findings of 17 the Gertig study; rather, they cite those 18 data, don't they? 19 A. They do. 20 MS. CURRY: Object to the 21 form. 22 THE WITNESS: I just think 23 it's a mistake to leave out what 24 clearly -- this statement, "To</p>	<p style="text-align: right;">Page 381</p> <p>1 there's -- there is two different 2 publications. You're right, they are 3 only citing one of them. 4 Q. So the Nurses' Health Study 5 was one study with two publications or it 6 was two studies with two publications? 7 MS. CURRY: Object to the 8 form. 9 THE WITNESS: As you can see 10 with my case-control lists for 11 example, I still counted those as 12 separate studies and you are 13 talking about what percentage are 14 positive, what percentage are 15 negative. When, in fact, I had 16 studies that were reported on the 17 same populations at later time. I 18 can -- I considered them two 19 studies. 20 So I'm -- the Nurses' Health 21 Study was one prospective study 22 with -- with two publications. 23 And the fact that they don't cite 24 Gates, I see as a weakness to</p>

<p style="text-align: right;">Page 382</p> <p>1 their -- their introduction. 2 BY MS. GARBER: 3 Q. You think they should have 4 cited the Gates 2010 study? 5 A. I think that's -- I think 6 that's -- it should make you pause when 7 the only prospective study that you're 8 quoting has this increased risk. And 9 then the women followed longer, the risk 10 goes away. It's worth mentioning I would 11 think. 12 Q. Well, Doctor, the Gates 13 study is peer reviewed and published, 14 right? 15 A. Yes. 16 Q. And the Penninkilampi is 17 peer reviewed and published, correct? 18 A. Yes. 19 Q. And I know the Taher isn't 20 yet peer reviewed, but it -- it cites to 21 the Gertig study too, doesn't it? 22 A. Repeated -- 23 MS. CURRY: Object to the 24 form.</p>	<p style="text-align: right;">Page 384</p> <p>1 A. I have to go back to the 2 materials and methods to see if they 3 asked. One second. 4 No. 5 Q. Okay. And while there is 6 duration of exposure, you don't know how 7 many women were exposed to long-term talc 8 defined by more than 20 years, do you, 9 this study doesn't report that data, does 10 it? 11 A. How many women had used it 12 for 20 or more years? 13 Q. Yes. 14 A. I'd have to go to the 15 results to check for that. Because it 16 was part of the questions. 17 Q. All right. That's all 18 right. I'll withdraw the question. 19 And turning to Page 4, 20 Table 2. It shows the number of women in 21 the study who reported using talcum 22 powder products on their genitals, right? 23 A. Yes. 24 Q. And how many women used</p>
<p style="text-align: right;">Page 383</p> <p>1 THE WITNESS: -- mistakes 2 don't make it less of a mistake. 3 BY MS. GARBER: 4 Q. Okay. But -- but at least 5 the Gertig and the Penninkilampi are peer 6 reviewed and cite -- 7 A. Some of -- so -- 8 Q. -- to Gertig -- 9 A. Yes. 10 Q. -- is that true? 11 A. Yes, yes. 12 Q. Okay. Let's talk further 13 about the Houghton study -- 14 A. Yes. 15 Q. -- the WHI study. The study 16 enrolled 61,576 postmenopausal women, 17 right? 18 A. I'm sorry -- 19 Q. It's in the abstract under 20 results? 21 A. Yes. 22 Q. Okay. And you don't -- do 23 you know when the women started using 24 talc, at what age, in this study?</p>	<p style="text-align: right;">Page 385</p> <p>1 it -- let me catch up to you. How many 2 women were reporting using ten years or 3 more? 4 A. 68. 5 Q. Not very many, is it? 6 MS. CURRY: Object to the 7 form. 8 THE WITNESS: No. 9 This -- you -- let me 10 clarify. You're asking not how 11 many women used it for longer, but 12 how many women who developed 13 ovarian cancer that had used it. 14 BY MS. GARBER: 15 Q. Yeah. 16 A. That's 68. Yes. 17 Q. Yeah. It's not very many 18 women in that study group, is it? 19 MS. CURRY: Object to the 20 form. 21 THE WITNESS: Relative to? 22 BY MS. GARBER: 23 Q. Relative to 200,000? 24 A. Narod didn't say you need</p>

<p style="text-align: right;">Page 386</p> <p>1 200,000 women with ovarian cancer. He 2 said you need 200,000 women total. 3 Q. Okay. Is 68 who developed 4 ovarian cancer a good amount that gives 5 you confidence in these data? 6 MS. CURRY: Object to the 7 form. 8 THE WITNESS: You know, the 9 smaller the number, the wider the 10 confidence interval would be. 11 BY MS. GARBER: 12 Q. Is this a wide confidence 13 interval? You testified in the Ingham 14 case it was, didn't you? 15 A. That this is a wide 16 interval? 17 Q. Mm-hmm. 18 A. Well, it crosses -- it's 19 wide enough, and it's in the wrong -- you 20 know, it crosses one, so it's not 21 statistically significant. 22 So that apparent reduction 23 in the risk, that 2 percent reduction in 24 the risk, I wouldn't trust it.</p>	<p style="text-align: right;">Page 388</p> <p>1 BY MS. GARBER: 2 Q. Okay. Another limitation of 3 the study was that one-sided metric of 4 only capturing duration. Do you agree 5 with that? 6 MS. CURRY: Object to the 7 form. 8 THE WITNESS: I think a 9 perfect study would collect -- 10 collect both. So yes. 11 BY MS. GARBER: 12 Q. It would be an optimal study 13 to collect both, wouldn't it? 14 MS. CURRY: Object to the 15 form. 16 THE WITNESS: Unfortunately 17 there is no such thing as an 18 optimal study. I could look at 19 all -- every study I reviewed and 20 pick up things that should have 21 been done differently and better. 22 And hopefully learn with the next 23 study design. But that's true for 24 everything in my reliance list.</p>
<p style="text-align: right;">Page 387</p> <p>1 Q. That's a limitation of the 2 study, right, the wide confidence 3 interval, in that few women -- few number 4 of women participants? 5 MS. CURRY: Object to the 6 form. 7 BY MS. GARBER: 8 Q. Right? 9 A. The few number of women 10 participants, it's -- it's actually what, 11 61,000 women participants. 12 Q. The 68 women participants 13 calls into question the validity of this 14 subgroup analysis, doesn't it, Doctor? 15 MS. CURRY: Object to the 16 form. 17 THE WITNESS: If you're -- 18 the only analysis that was broken 19 down, you're saying the number of 20 women with ten or more years is 21 68. 22 And when you say that's low, 23 I'm not sure it's relative to 24 what.</p>	<p style="text-align: right;">Page 389</p> <p>1 BY MS. GARBER: 2 Q. Let's see if we can work out 3 how this would work. 4 If you only captured 5 duration of use and you said it was -- 6 you used it ten years or more, a given 7 woman could have used it once a year on 8 her anniversary for all you know, 9 correct? 10 A. Correct. 11 The -- the big problem with 12 this whole body of literature though, is 13 this concept that you have any idea of 14 the dose at the tissue level. 15 I -- if you told me you used 16 it everyday, and I'm a woman and I use it 17 everyday and you take three shakes and I 18 take one, we're really not getting to the 19 heart of dose-response. 20 And this -- this is a 21 difficulty of all this topic. It's -- 22 it's -- they are all limited. They are 23 all limited. We have no idea of the dose 24 of talc, if it's even getting to the</p>

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<p>1 ovaries, and if it's getting to the</p> <p>2 ovaries from that dusting, what amount is</p> <p>3 getting to the ovaries. And so we're</p> <p>4 playing a pseudoscience game with</p> <p>5 dose-response.</p> <p>6 This isn't really</p> <p>7 dose-response. Dose-response studies</p> <p>8 have to do with the level of what you're</p> <p>9 interested in at the tissue level. So we</p> <p>10 can go through the stuff and talk about</p> <p>11 these as weaknesses, but this whole body</p> <p>12 of literature is weakened by the</p> <p>13 inability to know.</p> <p>14 I don't even know for sure</p> <p>15 that it gets to the ovary from this way.</p> <p>16 How much each women put into her --</p> <p>17 dusted with is -- is totally random.</p> <p>18 Q. And that's what I want to</p> <p>19 really get at here because you're aware</p> <p>20 of data where there is talc found in the</p> <p>21 ovarian tissue, both tumor and</p> <p>22 non-diseased, right?</p> <p>23 A. In women who report exposure</p> <p>24 and women who don't report exposure.</p>	<p>1 Because even in the cases of</p> <p>2 the particles that you find, I</p> <p>3 have no idea how they got there.</p> <p>4 There is -- there is a lot</p> <p>5 of weakness just overall in this</p> <p>6 whole area.</p> <p>7 So I would be less bothered</p> <p>8 by that if you gave me the</p> <p>9 epidemiology data that showed me a</p> <p>10 20-fold increase. Then I'm less</p> <p>11 reliant or feel like you -- it's</p> <p>12 less necessary.</p> <p>13 But in this situation where</p> <p>14 we've already gone through the</p> <p>15 epidemiologic data earlier. And I</p> <p>16 pointed out all the</p> <p>17 inconsistencies, as I describe. I</p> <p>18 call a 50/50 split inconsistent.</p> <p>19 And now you get to this, and</p> <p>20 you can point out all the</p> <p>21 weaknesses. But I'm saying</p> <p>22 there's weaknesses in all these</p> <p>23 studies going through.</p> <p>24</p>
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<p>1 Q. Okay. And you're aware</p> <p>2 of -- from your work in individual cases,</p> <p>3 that there are women who report talcum</p> <p>4 powder product exposure who have found</p> <p>5 asbestos and talc in their ovaries,</p> <p>6 correct?</p> <p>7 MS. CURRY: Object to the</p> <p>8 form.</p> <p>9 THE WITNESS: There are</p> <p>10 women who report neither of the</p> <p>11 two who find particles that</p> <p>12 diagnosed as talc or asbestos in</p> <p>13 their ovaries.</p> <p>14 So you're getting to my</p> <p>15 point, is that the -- it falls</p> <p>16 apart with the biologic</p> <p>17 plausibility because of all these</p> <p>18 weaknesses, because you can't</p> <p>19 really assess dose at the tissue</p> <p>20 level, because women who report</p> <p>21 no -- because there isn't a good</p> <p>22 correlation between reported</p> <p>23 history of exposure and finding</p> <p>24 the particles.</p>	<p>1 BY MS. GARBER:</p> <p>2 Q. Doctor, do you think that</p> <p>3 the data which shows that there is</p> <p>4 asbestos and talc in ovarian tissue</p> <p>5 provides a biologically plausible</p> <p>6 mechanism of carcinogenicity?</p> <p>7 MS. CURRY: Object to the</p> <p>8 form.</p> <p>9 THE WITNESS: Just the</p> <p>10 presence of it in the --</p> <p>11 BY MS. GARBER:</p> <p>12 Q. Yeah.</p> <p>13 A. This is part of the problem</p> <p>14 with this whole area. The presence --</p> <p>15 Q. Doctor, that wasn't my</p> <p>16 question.</p> <p>17 A. No. The presence --</p> <p>18 Q. Yes or no.</p> <p>19 A. No. The presence of it does</p> <p>20 not --</p> <p>21 Q. You don't think that --</p> <p>22 A. Just the mere presence of</p> <p>23 the particle does not prove a causal</p> <p>24 relationship.</p>

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<p>1 Q. And you've seen paper after 2 published paper wherein the study authors 3 who are actually studying talcum powder 4 exposure, talc product exposure and 5 ovarian cancer, are stating that there is 6 a biologically plausible mechanism, 7 correct?</p> <p>8 MS. CURRY: Object to the 9 form.</p> <p>10 THE WITNESS: The 11 statements of -- 12 BY MS. GARBER: 13 Q. You just disagree with them? 14 MS. CURRY: Object to the 15 form.</p> <p>16 THE WITNESS: But the -- in 17 no situation, in medicine that I 18 can think of would a -- the mere 19 presence of a molecule or particle 20 or whatever in a certain organ be 21 evidence of its carcinogenicity. 22 That's not biologic 23 plausibility. 24 Just its mere presence</p>	<p>1 not just in talc. I would look at 2 that as a ridiculous situation in 3 any statement.</p> <p>4 We're here and studying this 5 because people say they -- they 6 describe finding talc there. But 7 that's -- that's not the burden of 8 proof.</p> <p>9 BY MS. GARBER: 10 Q. Okay. Do you think the 11 burden of proof is absolute proof that 12 the talc got there through perineal 13 dusting? 14 A. Does it matter how it got 15 there if it's a carcinogen? 16 Q. If it's a carcinogen, does 17 it matter? 18 A. It matters maybe for you, 19 because of the nature of this litigation. 20 But if talc caused cancer of 21 the ovary, I could care less how it got 22 there. I'd want to -- you know, the fact 23 that it's there is an issue. You'd be 24 able to prove that it's a carcinogen.</p>
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<p>1 isn't.</p> <p>2 And the fact -- the fact 3 that so many people are saying 4 that is exactly what I'm talking 5 about when people overstate the 6 findings of their studies, just 7 the -- just the finding it there 8 in no way implies biologic 9 plausibility.</p> <p>10 BY MS. GARBER: 11 Q. That's your opinion, right? 12 A. That's like saying -- 13 Q. There are study authors who 14 disagree with you, correct? 15 MS. CURRY: Object to the 16 form.</p> <p>17 THE WITNESS: Just to give 18 you an example, it was -- it would 19 be like saying because I went to 20 the bank, there's a plausible 21 evidence that I robbed the bank 22 because I was there. I mean, that 23 doesn't make any sense to me. 24 That's not the way I look at it,</p>	<p>1 So even the cases, the 2 Heller study, you mentioned it earlier, 3 24 women, 12 reporting a history of 4 exposure, 12 not reporting a history of 5 exposure. Not only is there not a 6 correlation, if I go back and I read the 7 paper, I think the fiber counts are even 8 higher in the women without a reported 9 history.</p> <p>10 Q. We're going to look at that 11 paper in a minute. But, Doctor, don't 12 the authors suggest why that is, why the 13 unexposed group may have high fiber 14 counts? 15 MS. CURRY: Object to the 16 form.</p> <p>17 THE WITNESS: Do they 18 what -- what it is? Can you 19 repeat? 20 BY MS. GARBER: 21 Q. Don't the study authors 22 suggest -- 23 A. See -- 24 Q. -- what may account for that</p>

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<p style="text-align: right;">Page 398</p> <p>1 high fiber burden in the non-exposed 2 group? 3 MS. CURRY: Object to the 4 form. 5 THE WITNESS: If you 6 equal -- if you think and suggest 7 and hypothesize are the same, I 8 would agree with you. You see 9 suggestion in science means 10 there's some evidence to make you 11 think this is the case. 12 Otherwise, you're just -- it's 13 conjecture and it's hypothesis. 14 BY MS. GARBER: 15 Q. And you read the Cramer 16 paper. Didn't the Cramer paper suggest 17 that -- address the issues, the 18 shortcomings of the Heller data, that 19 there may be surface contamination that 20 goes in and mixes with the talc or 21 asbestos in the tissue which accounts for 22 the unexposed group? 23 MS. CURRY: Object to the 24 form.</p>	<p style="text-align: right;">Page 400</p> <p>1 Q. No, from the paraffin 2 processing, right? 3 MS. CURRY: Object to the 4 form. 5 THE WITNESS: Contamination 6 at some point. I mean, is it 7 contamination during processing? 8 Is it from surgical gloves from 9 past surgeries? Is it from -- my 10 point is, this is all conjecture 11 because there's all these possible 12 explanations. And people can 13 suggest what they want in their 14 introduction to their paper. 15 But I'm more interested in 16 the actual science that goes to 17 the heart of trying to figure 18 out -- you know. 19 But again, you're -- we 20 started this conversation by 21 talking about the mere presence of 22 talc particles in the ovary. 23 BY MS. GARBER: 24 Q. Okay. So we'll get back to</p>
<p style="text-align: right;">Page 399</p> <p>1 BY MS. GARBER: 2 Q. Don't they suggest that? 3 A. Yes. You're saying that one 4 author says it's from one explanation and 5 Cramer says it's from another 6 explanation, so yeah, they're all 7 suggesting these different things. One 8 person saying it is diapering as a child. 9 The next person is saying it's 10 contamination. The truth is no one 11 knows. 12 Q. Did Cramer say it's coming 13 from contamination, or did Cramer say 14 that you need to do polarized light to 15 make sure that you're adequately counting 16 what's really deeply embedded in the 17 tissue and not what's coming in the 18 surface? 19 MS. CURRY: Object to the 20 form. 21 THE WITNESS: Because he 22 thinks what's on the surface is 23 contamination. 24 BY MS. GARBER:</p>	<p style="text-align: right;">Page 401</p> <p>1 the cohorts, and then we'll move onto the 2 biologic plausibility. 3 But you would agree with me, 4 wouldn't you, that there are study -- 5 peer-reviewed study authors that set 6 forth that there is a biologically 7 plausible mechanism. You just disagree 8 with that, correct? 9 MS. CURRY: Object to the 10 form. 11 THE WITNESS: The reason 12 that I have to disagree with it 13 is -- 14 BY MS. GARBER: 15 Q. Doctor, my question is yes 16 or no. 17 A. I disagree with it that 18 there's -- it's conjecture. 19 Q. That's fine. I understand 20 your opinion. 21 I just want you to answer my 22 question, which is you agree that there 23 are study authors that say there's 24 biologically plausible mechanism, you</p>

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<p>1 just disagree with that?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 BY MS. GARBER:</p> <p>5 Q. Correct?</p> <p>6 A. I disagree with it. Many</p> <p>7 people disagree with it.</p> <p>8 Q. Okay. And there's many</p> <p>9 people who agree with it, right?</p> <p>10 MS. CURRY: Object to the</p> <p>11 form.</p> <p>12 THE WITNESS: Based on</p> <p>13 pseudoscience.</p> <p>14 BY MS. GARBER:</p> <p>15 Q. Is the Health Canada</p> <p>16 pseudoscience?</p> <p>17 A. No, I wouldn't describe</p> <p>18 Health Canada as pseudoscience in</p> <p>19 totality. But if you -- if you want to</p> <p>20 read through it and ask what things I</p> <p>21 agree with and what things I don't, I</p> <p>22 think I've already told you that when --</p> <p>23 when authors make statements in their</p> <p>24 preambles, in their introductions, that</p>	<p>1 Q. Doctor, this study involved</p> <p>2 only 41,654 women, correct?</p> <p>3 A. 41,000 women, and 600.</p> <p>4 Q. Yeah. And the talc exposure</p> <p>5 metric was to ask women about the</p> <p>6 frequency of their talcum powder exposure</p> <p>7 within -- in their genitals within the</p> <p>8 prior 12 months, correct?</p> <p>9 A. Let me just confirm that.</p> <p>10 Q. It's under the methods on</p> <p>11 the abstract, Doctor.</p> <p>12 A. Can you repeat your</p> <p>13 statement just now?</p> <p>14 Q. Doctor, was one of the</p> <p>15 limitations that the -- the exposure was</p> <p>16 talcum powder exposure to the genitals</p> <p>17 within the prior 12 months. Do you agree</p> <p>18 with that?</p> <p>19 A. Yes. Along -- along with</p> <p>20 frequency. I -- I thought you were --</p> <p>21 yes.</p> <p>22 Q. Okay. And the follow-up</p> <p>23 there in the abstract was 6.6 years,</p> <p>24 right?</p>
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<p>1 aren't based on data but they state it as</p> <p>2 a fact, watch out for what's coming</p> <p>3 later.</p> <p>4 Q. Okay. We'll go to --</p> <p>5 A. If somebody starts off like</p> <p>6 that.</p> <p>7 Q. We'll go to Health Canada</p> <p>8 and see what they said about biologic</p> <p>9 plausibility.</p> <p>10 A. You spend a lot of time in</p> <p>11 Canada.</p> <p>12 Q. You also reviewed the Gertig</p> <p>13 study, correct?</p> <p>14 A. The same study that we were</p> <p>15 just going through?</p> <p>16 Q. I'm sorry, I -- I misspoke.</p> <p>17 The Gonzalez study?</p> <p>18 A. Yes, I did.</p> <p>19 Q. And I'll mark that as</p> <p>20 Exhibit 22.</p> <p>21 (Document marked for</p> <p>22 identification as Exhibit</p> <p>23 Holcomb-22.)</p> <p>24 BY MS. GARBER:</p>	<p>1 A. Yes.</p> <p>2 Q. And you don't know when the</p> <p>3 women started using talc, right?</p> <p>4 A. No.</p> <p>5 Q. Like the others?</p> <p>6 A. As I -- I would anticipate</p> <p>7 that they were average users.</p> <p>8 Q. Doctor, does douching</p> <p>9 increase the risk for ovarian cancer?</p> <p>10 A. This study suggests it does.</p> <p>11 Q. Is douching a risk factor</p> <p>12 for ovarian cancer?</p> <p>13 A. This study suggests it is.</p> <p>14 Q. Do you tell your patients</p> <p>15 that douching is a risk factor for</p> <p>16 ovarian cancer?</p> <p>17 A. No. Because it's only one</p> <p>18 study suggesting it.</p> <p>19 Q. And, Doctor, any of the</p> <p>20 limitations that we've just gone through</p> <p>21 with regard to the cohort studies, none</p> <p>22 of them are listed within the four</p> <p>23 corners of your expert report; is that</p> <p>24 correct?</p>

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<p>1 MS. CURRY: Object to the</p> <p>2 form.</p> <p>3 THE WITNESS: The</p> <p>4 limitations of cohort studies in</p> <p>5 general?</p> <p>6 BY MS. GARBER:</p> <p>7 Q. That we've gone through</p> <p>8 here, as we've gone through the cohorts.</p> <p>9 A. The --</p> <p>10 Q. You have not -- you have not</p> <p>11 put forth in the four corners of your</p> <p>12 report any of the study limitations of</p> <p>13 the cohorts, correct?</p> <p>14 A. I'd have to read through</p> <p>15 the -- through this again. I -- I don't</p> <p>16 remember exactly, you know, every word</p> <p>17 that I said about them.</p> <p>18 Q. Doctor, let's talk about the</p> <p>19 meta-analyses.</p> <p>20 A. Sure.</p> <p>21 (Document marked for</p> <p>22 identification as Exhibit</p> <p>23 Holcomb-23.)</p> <p>24 BY MS. GARBER:</p>	<p>1 MS. CURRY: Do you have</p> <p>2 copies of that?</p> <p>3 BY MS. GARBER:</p> <p>4 Q. Doctor, what I've attempted</p> <p>5 to do is to show the results for talcum</p> <p>6 powder product and ovarian cancer results</p> <p>7 of the meta-analyses.</p> <p>8 A. Mm-hmm.</p> <p>9 Q. And I've listed there the</p> <p>10 meta-analyses and the pooled study.</p> <p>11 The -- as you see study type, the Berge</p> <p>12 study indicates it's a pooled study.</p> <p>13 All of those odds ratios are</p> <p>14 within the vicinity of 1.22 to 1.35.</p> <p>15 Do you see that?</p> <p>16 A. Yes.</p> <p>17 MS. CURRY: Object to the</p> <p>18 form.</p> <p>19 BY MS. GARBER:</p> <p>20 Q. And those are discrepant</p> <p>21 results?</p> <p>22 A. I wasn't speaking about the</p> <p>23 strength of association. I think you</p> <p>24 assumed that.</p>
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<p>1 Q. I'm going to mark the</p> <p>2 Penninkilampi paper. Exhibit 23.</p> <p>3 Doctor, before we turn to</p> <p>4 the Penninkilampi paper. In your expert</p> <p>5 report, you indicate that the</p> <p>6 meta-analyses -- the results of the</p> <p>7 meta-analyses --</p> <p>8 A. Can you tell me what page</p> <p>9 you are reading from?</p> <p>10 Q. Page 13.</p> <p>11 -- are discrepant. Do you</p> <p>12 recall using that phrase or that term?</p> <p>13 It's the very last two words</p> <p>14 of the first paragraph at Page 13.</p> <p>15 Do you see that?</p> <p>16 A. Yes.</p> <p>17 (Document marked for</p> <p>18 identification as Exhibit</p> <p>19 Holcomb-24.)</p> <p>20 BY MS. GARBER:</p> <p>21 Q. And I'm going to mark as</p> <p>22 Exhibit 24, a document which I will</p> <p>23 represent to you I created. It may have</p> <p>24 errors on it. I hope it doesn't.</p>	<p>1 I was referring to, there's</p> <p>2 discrepancies between what tumors were</p> <p>3 increased and which ones weren't. For</p> <p>4 example, Penninkilampi, I believe, found</p> <p>5 serous and endometrioid but not mucinous</p> <p>6 or clear cell. Berge found serous only.</p> <p>7 Terry found -- I don't even think Terry</p> <p>8 broke it down by...</p> <p>9 So there's discrepancies in</p> <p>10 results. I wasn't referring to the</p> <p>11 strength of association.</p> <p>12 Q. Okay.</p> <p>13 A. We spent a fair amount of</p> <p>14 time earlier talking about the levels of</p> <p>15 overlap in some of the meta-analyses.</p> <p>16 Q. We're going to give you a</p> <p>17 chance to talk about those in a second,</p> <p>18 Doctor.</p> <p>19 A. Sure.</p> <p>20 Q. With regard to talcum powder</p> <p>21 products and serous ovarian cancer in the</p> <p>22 meta-analyses, the Taher paper, the</p> <p>23 Penninkilampi paper and the Berge paper</p> <p>24 are all within 1.24 to 1.38. Do you</p>

<p style="text-align: right;">Page 410</p> <p>1 agree with that?</p> <p>2 A. Can we talk -- we spoke</p> <p>3 earlier about the overlap in the number,</p> <p>4 the studies on these three studies --</p> <p>5 Q. Doctor, I --</p> <p>6 A. -- so it would be strange</p> <p>7 for the same study design to come out</p> <p>8 with discrepant results when they are</p> <p>9 looking at largely the same studies.</p> <p>10 So yes, the -- the point</p> <p>11 that these are showing consistency is not</p> <p>12 going towards proving causality. Because</p> <p>13 you would just expect that if you</p> <p>14 subjected the same studies to this study</p> <p>15 design, you really should come up with</p> <p>16 very similar results.</p> <p>17 Q. So you agree then, Doctor,</p> <p>18 that the meta-analyses both with</p> <p>19 epithelial ovarian cancer and serous</p> <p>20 ovarian cancer are consistent, correct?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: I believe they</p> <p>24 are very similar studies.</p>	<p style="text-align: right;">Page 412</p> <p>1 A. It's a mistake then that's</p> <p>2 not only made by Penninkilampi.</p> <p>3 Q. Right. The -- you have not</p> <p>4 performed a meta-analysis yourself, have</p> <p>5 you?</p> <p>6 A. No, I have not.</p> <p>7 Q. And you certainly do not</p> <p>8 have any evidence, do you, Dr. Holcomb,</p> <p>9 that would support your contention that</p> <p>10 if the study authors had used Gates 2010</p> <p>11 instead of Gertig, it would have changed</p> <p>12 the outcome?</p> <p>13 MS. CURRY: Object to the</p> <p>14 form.</p> <p>15 THE WITNESS: I'm not so</p> <p>16 sure about that.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. You would be speculating,</p> <p>19 wouldn't you, because you haven't done</p> <p>20 that study, right?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: But that</p> <p>24 wasn't your question. Can you</p>
<p style="text-align: right;">Page 411</p> <p>1 BY MS. GARBER:</p> <p>2 Q. Is the answer to my question</p> <p>3 yes?</p> <p>4 A. Yes. I believe that when</p> <p>5 you examine the same studies you will get</p> <p>6 very similar answers.</p> <p>7 Q. With regard to your</p> <p>8 criticisms of the Penninkilampi paper,</p> <p>9 did you write the journal voicing your</p> <p>10 concerns about this study?</p> <p>11 A. No.</p> <p>12 Q. Did you attempt to contact</p> <p>13 the study authors?</p> <p>14 A. No.</p> <p>15 Q. And you indicate in your</p> <p>16 expert report that the study authors in</p> <p>17 Penninkilampi should have included the</p> <p>18 Gates study instead of the Gertig 2000</p> <p>19 study; is that correct?</p> <p>20 A. Yes.</p> <p>21 Q. And there are other study</p> <p>22 authors that we've seen that have</p> <p>23 included Gertig rather than Gates 2010,</p> <p>24 correct?</p>	<p style="text-align: right;">Page 413</p> <p>1 repeat your question?</p> <p>2 BY MS. GARBER:</p> <p>3 Q. Sure. I'll ask it this way.</p> <p>4 A. No, I wanted you to repeat,</p> <p>5 because I -- you're saying speculation,</p> <p>6 but I believe you asked me to speculate.</p> <p>7 Q. Sure. I'll ask you a better</p> <p>8 question.</p> <p>9 You have not performed a</p> <p>10 meta-analysis using the Gates rather than</p> <p>11 the Gertig for the ever use with</p> <p>12 epithelial ovarian cancer, true?</p> <p>13 A. As I stated earlier I have</p> <p>14 not performed any meta-analysis, so that</p> <p>15 would be true for that specific question</p> <p>16 as well.</p> <p>17 Q. And there are no study</p> <p>18 authors that have indicated it's a</p> <p>19 mistake to include Gertig rather than</p> <p>20 Gates 2010, correct?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 BY MS. GARBER:</p> <p>24 Q. In other words, Health</p>

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<p>1 Canada didn't say that, did they?</p> <p>2 A. Health Canada included</p> <p>3 Gates, so they didn't make the mistake.</p> <p>4 Q. But they didn't say it was a</p> <p>5 mistake for other study authors to</p> <p>6 include --</p> <p>7 A. The fact that they didn't</p> <p>8 make the same mistake, I've got to</p> <p>9 believe that they thought it was</p> <p>10 worthwhile to include the study. So yes,</p> <p>11 they thought it was a mistake not to</p> <p>12 include it. They included it.</p> <p>13 Q. Well, they didn't say it was</p> <p>14 a mistake, did they?</p> <p>15 A. Because they did it. Why</p> <p>16 would they --</p> <p>17 Q. Doctor, you are speculating,</p> <p>18 aren't you?</p> <p>19 MS. CURRY: Object to the</p> <p>20 form.</p> <p>21 BY MS. GARBER:</p> <p>22 Q. As -- as we talked about</p> <p>23 earlier --</p> <p>24 MS. SHARKO: Was that a</p>	<p>1 am?</p> <p>2 A. I'm looking at A, yes.</p> <p>3 Q. Yeah, okay. Very good. And</p> <p>4 with the legend below, it indicates that</p> <p>5 2-A is any perineal talc use, right?</p> <p>6 That's a ever/never metric, right?</p> <p>7 A. That's what they say down</p> <p>8 here, yes.</p> <p>9 Q. Right. And as we see, Gates</p> <p>10 is not an ever/never, is it?</p> <p>11 A. Neither is Wu, et al., 2015</p> <p>12 and they included that --</p> <p>13 Q. I thought you might say</p> <p>14 that. Let's look at Wu. Or let's look</p> <p>15 at what Penninkilampi says about Wu.</p> <p>16 A. Okay.</p> <p>17 Q. Let's go to Page 43 of the</p> <p>18 Penninkilampi paper. And here in the</p> <p>19 middle of the paragraph.</p> <p>20 Do you see where I am?</p> <p>21 A. Yes.</p> <p>22 Q. It says, "Note that the Wu,</p> <p>23 et al., 2015 include results from Wu</p> <p>24 2009. However, only Wu, et al., 2009,</p>
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<p>1 question the doctor should answer?</p> <p>2 BY MS. GARBER:</p> <p>3 Q. Did you answer my question?</p> <p>4 A. I'm a little confused if you</p> <p>5 can repeat.</p> <p>6 Q. I'll just withdraw and move</p> <p>7 on.</p> <p>8 Doctor, the exposure for</p> <p>9 Gertig was ever/never, right?</p> <p>10 A. Right.</p> <p>11 Q. And the exposure for Gates</p> <p>12 was not ever/never, was it?</p> <p>13 A. No.</p> <p>14 Q. And so let's look at</p> <p>15 Penninkilampi, if we could. Page 46,</p> <p>16 figure A.</p> <p>17 Do you see where I am?</p> <p>18 Figure 2-A.</p> <p>19 A. I'm sorry, 2-A? I'm looking</p> <p>20 at -- oh, I'm looking at Table 2. 46.</p> <p>21 Sorry.</p> <p>22 Q. It's on Page 46.</p> <p>23 A. Yes.</p> <p>24 Q. And -- do you see where I</p>	<p>1 reported on non-perineal talc use total</p> <p>2 lifetime applications and long-term talc</p> <p>3 use, hence data were extracted from Wu</p> <p>4 2015 for any perineal use outcome from</p> <p>5 the Wu, et al., 2009, for the" -- "for</p> <p>6 the three other outcomes previously</p> <p>7 mentioned."</p> <p>8 So the authors in</p> <p>9 Penninkilampi were trying to keep the</p> <p>10 data consistent and keep with ever/never</p> <p>11 exposure, not change the metric, right,</p> <p>12 Doctor?</p> <p>13 A. Give me one -- give me one</p> <p>14 second just read that. Note that Wu, et</p> <p>15 al...</p> <p>16 MS. CURRY: Object to the</p> <p>17 form. And do you have a copy of</p> <p>18 Wu 2015? Do you have a copy of</p> <p>19 the Wu 2015 paper?</p> <p>20 MS. GARBER: I may. I don't</p> <p>21 know if I'm going to use it. You</p> <p>22 can if you'd like.</p> <p>23 BY MS. GARBER:</p> <p>24 Q. Doctor, should we go off the</p>

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<p>1 record while you read that?</p> <p>2 A. Well, I guess I don't -- I'm</p> <p>3 trying to figure out, is he saying that</p> <p>4 he only looked at the patients in Wu 2015</p> <p>5 that were actually included in the Wu</p> <p>6 2009 for that --</p> <p>7 Q. Doctor, if you don't</p> <p>8 understand what the authors are saying --</p> <p>9 A. I don't.</p> <p>10 Q. -- we'll just move on.</p> <p>11 A. Yeah, I don't understand.</p> <p>12 Q. Okay. All right. Let's</p> <p>13 move on.</p> <p>14 A. Because it seems to me that</p> <p>15 he would only include Wu 2009.</p> <p>16 Q. Doctor, I don't have a</p> <p>17 question pending.</p> <p>18 A. If Wu 2009 only had the ever</p> <p>19 use, why have Wu 2015 cited if you only</p> <p>20 used the patients on 2009?</p> <p>21 MS. GARBER: Objection to</p> <p>22 strike as nonresponsive.</p> <p>23 BY MS. GARBER:</p> <p>24 Q. Doctor, I did not have a</p>	<p>1 they were similar to IARC,</p> <p>2 possibly a carcinogen.</p> <p>3 BY MS. GARBER:</p> <p>4 Q. Health Canada?</p> <p>5 A. Yes.</p> <p>6 Q. Okay. Let's look at Health</p> <p>7 Canada.</p> <p>8 A. Sure. I have it open.</p> <p>9 Q. Doctor, if you can turn to</p> <p>10 Page 21, and right above 6.2, exposure</p> <p>11 assessment, it indicates, "The most</p> <p>12 recent meta-analysis detailed above,</p> <p>13 Taher 2018, and consistent with the Hill</p> <p>14 criteria suggest a small but consistent</p> <p>15 statistically significant positive</p> <p>16 association between ovarian cancer and</p> <p>17 perineal talc exposure. Further</p> <p>18 available data are indicative of a causal</p> <p>19 effect."</p> <p>20 Did I read that correctly?</p> <p>21 A. Yes. Apparently they</p> <p>22 disagree with IARC.</p> <p>23 Q. They looked at more data</p> <p>24 than IARC looked at, didn't they?</p>
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<p>1 question pending.</p> <p>2 Are you aware, Doctor, that</p> <p>3 the Health Canada considered the</p> <p>4 collective meta-analyses in coming to</p> <p>5 their causal opinion regarding genital</p> <p>6 talc and risk of ovarian cancer?</p> <p>7 A. Yes.</p> <p>8 MS. CURRY: Object to the</p> <p>9 form.</p> <p>10 BY MS. GARBER:</p> <p>11 Q. And are you aware that the</p> <p>12 IARC 2010 considered the meta-analyses</p> <p>13 that were then available at the time in</p> <p>14 coming to their findings regarding talc</p> <p>15 and its carcinogenicity?</p> <p>16 A. Yes.</p> <p>17 Q. And what was Health Canada's</p> <p>18 conclusion about talc and risk of ovarian</p> <p>19 cancer? Did they come to a causal</p> <p>20 opinion?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: My memory was</p> <p>24 that they said it's possibly --</p>	<p>1 A. I'll tell you, I'm not -- I</p> <p>2 have to tell you that they do say causal</p> <p>3 effect here. And yet if I have time to</p> <p>4 read through this, I can show you where</p> <p>5 they say it's a possible carcinogen.</p> <p>6 And I'm not sure how you can</p> <p>7 say that something is a possible</p> <p>8 carcinogen and that it is causative of</p> <p>9 cancer in the same paper.</p> <p>10 But if you can give -- if</p> <p>11 you give me the time I can show you where</p> <p>12 it says it's a possible carcinogen.</p> <p>13 MS. GARBER: Let's take a</p> <p>14 break.</p> <p>15 THE VIDEOGRAPHER: Okay.</p> <p>16 The time -- the time is 5:01 p.m.</p> <p>17 Off the record.</p> <p>18 (Short break.)</p> <p>19 THE VIDEOGRAPHER: We are</p> <p>20 back on the record. The time is</p> <p>21 5:22 p.m.</p> <p>22 BY MS. GARBER:</p> <p>23 Q. Just so I'm clear, Doctor,</p> <p>24 it's your opinion that there is no</p>

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<p>1 biologically plausible mechanism by which 2 talc powder products can translocate or 3 migrate from the perineum to the 4 fallopian tubes and ovaries in your 5 opinion? 6 A. I want to make sure I'm 7 understanding the question. I -- there 8 is no expelling evidence that I've seen 9 that has the ability to do it. So I'm 10 not ask -- I'm not sure if you're asking 11 is it just possible or is it -- is any 12 evidence to suggest that it can happen. 13 Because if -- if you're 14 saying is it possible, I'd have to say 15 yes. If you're saying is there any 16 evidence suggesting it could happen, I 17 would have to say no. 18 Q. Doctor, is there a 19 biologically plausible mechanism by which 20 talcum powder products can translocate 21 from the perineum to the fallopian tubes 22 and ovaries in your opinion? 23 A. I would have to say it would 24 be unlikely that -- that the female</p>	<p>1 can happen. 2 But people hypothesizing, 3 yes, I've seen that. 4 BY MS. GARBER: 5 Q. You've seen study authors 6 who conclude that, right? 7 A. I have seen study authors 8 who hypothesize it. You can't conclude 9 it without any studies showing it. 10 (Document marked for 11 identification as Exhibit 12 Holcomb-25.) 13 BY MS. GARBER: 14 Q. I'm going to mark as 15 Exhibit 25 a document which I'll 16 represent to you is an FDA letter dated 17 April 1st, 2014. 18 And, Doctor, this document 19 appears on your reference list, doesn't 20 it? 21 A. Yes. 22 Q. And if we could turn to 23 Page 5 in the middle of the page where 24 the --</p>
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<p>1 genital tract, while open, for obvious 2 reasons has developed many mechanisms to 3 keep particulate matter and foreign 4 bodies from ascending into the peritoneal 5 cavity. 6 So I would say it's -- it's 7 not plausible to me. 8 Q. You've seen study data that 9 would indicate that -- strike that. 10 You have seen study authors 11 who have concluded the opposite, that 12 there is a biologically plausible 13 mechanism by which talc can -- talcum 14 powder products can translocate from the 15 perineum to the fallopian tubes and 16 ovaries, right? 17 MS. CURRY: Object to the 18 form. 19 THE WITNESS: I'm assuming 20 you -- I'm assuming you struck 21 your original question because 22 they are making the statements 23 with no data. And so no, I've 24 never seen any data suggesting it</p>	<p>1 A. I'm sorry, give me one 2 second. 5 -- Page 4 -- 5. Mm-hmm. 3 Q. Where -- in the middle of 4 the document where the first word is 5 while. 6 Do you see where I am? 7 A. No. I'm sorry. Can -- can 8 we use the -- 9 Q. Right here in the middle, 10 where it says while. 11 A. Give me one second, ma'am. 12 Give me one second. Yes. 13 Q. "While there exists no 14 direct proof of talc and ovarian 15 carcinogenesis, the potential for 16 particulates to migrate from the perineum 17 and vagina to the peritoneal cavity is 18 indisputable." 19 Do you agree with that? 20 A. No. This is an example of 21 what I was saying earlier. Someone 22 making a very, very strong statement. 23 Indisputable, and yet there's no studies 24 showing that perineal talc can make it to</p>

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<p>1 the ovaries. And yet Dr. Epstein is</p> <p>2 saying it's indisputable.</p> <p>3 So that's not a judgment</p> <p>4 call. That's not reasonable doctors</p> <p>5 having different opinions. That's just</p> <p>6 wrong. It can't be indisputable without</p> <p>7 a single study showing its ability.</p> <p>8 Q. You -- you disagree with FDA</p> <p>9 on the issue of migration being</p> <p>10 indisputable, correct?</p> <p>11 A. No, I -- I disagree with</p> <p>12 Dr. Epstein.</p> <p>13 Q. And this letter comes from</p> <p>14 FDA, right?</p> <p>15 A. Written by Dr. Epstein,</p> <p>16 right?</p> <p>17 Q. Right. And --</p> <p>18 A. I'm sorry, no, it's written</p> <p>19 by -- it seems to be written by Steven</p> <p>20 Musser.</p> <p>21 Q. Right. It's written to</p> <p>22 Dr. Epstein.</p> <p>23 A. It's written to Dr. -- so I</p> <p>24 guess I'm disagreeing with Steven M.</p>	<p>1 Q. You don't recall that?</p> <p>2 A. No. If you can just point</p> <p>3 it out to me again.</p> <p>4 Q. Just so I'm clear, you</p> <p>5 disagree with the position of the FDA as</p> <p>6 indicated in the April 1st, 2014, paper</p> <p>7 on migration, right?</p> <p>8 A. I'm -- I'm disagreeing again</p> <p>9 with a Dr. Steven Musser, Ph.D., who is</p> <p>10 the deputy director for Scientific</p> <p>11 Operation Center For Food Safety and</p> <p>12 Applied Nutrition. That's who I'm</p> <p>13 disagreeing with.</p> <p>14 Q. So going back to the Health</p> <p>15 Canada which we've previously marked as</p> <p>16 Exhibit 11.</p> <p>17 Do you see starting at</p> <p>18 Pages 19 through 21, the study authors of</p> <p>19 the Health Canada assessment are</p> <p>20 analyzing the scientific evidence in the</p> <p>21 context of the Bradford Hill criteria?</p> <p>22 A. Is there a specific area</p> <p>23 you'd like me to read or?</p> <p>24 Q. No.</p>
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<p>1 Musser, Ph.D., who I -- I don't even know</p> <p>2 what area of practice he's -- he's the</p> <p>3 director of operations for Center of Food</p> <p>4 Safety and Applied Nutrition.</p> <p>5 I -- I don't know if he</p> <p>6 knows more about the female genital tract</p> <p>7 than I do, but my -- my guess is probably</p> <p>8 not. And if he's calling it indisputable</p> <p>9 in the absence of any study showing that</p> <p>10 it happens, that by definition is just</p> <p>11 wrong.</p> <p>12 Q. Doctor, you would agree,</p> <p>13 would you not, that in the Health Canada,</p> <p>14 the study authors, as part of the</p> <p>15 Bradford Hill have concluded that there</p> <p>16 is a biologically plausible mechanism by</p> <p>17 which talcum powder products can migrate</p> <p>18 from the perineum to the ovaries?</p> <p>19 MS. CURRY: Object to the</p> <p>20 form.</p> <p>21 THE WITNESS: I'd have --</p> <p>22 I'd have to read through it again.</p> <p>23 Can you point it to me?</p> <p>24 BY MS. GARBER:</p>	<p>1 Do you -- do you see that</p> <p>2 that's what that portion of the document</p> <p>3 is doing? It's an analysis of the</p> <p>4 evidence in the context of the Bradford</p> <p>5 Hill criteria.</p> <p>6 Is that true?</p> <p>7 A. They are addressing</p> <p>8 translocation in this section. I -- I</p> <p>9 assume that's part of a larger...</p> <p>10 Q. Doctor, is -- is strength of</p> <p>11 the association a criteria of Bradford</p> <p>12 Hill?</p> <p>13 A. Yes.</p> <p>14 Q. And consistency is a</p> <p>15 criteria of Bradford Hill?</p> <p>16 A. Yes. Which makes me think</p> <p>17 I'm looking at a different page.</p> <p>18 I'm sorry, which page are</p> <p>19 you on?</p> <p>20 Q. 19 through 20.</p> <p>21 A. 19.</p> <p>22 Q. Specificity as an aspect</p> <p>23 of --</p> <p>24 A. Oh, down at the bottom. I'm</p>

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<p>1 sorry. I was looking someplace else.</p> <p>2 If you can just give me some</p> <p>3 idea when we turn the page, if you're</p> <p>4 talking top or bottom, I can probably get</p> <p>5 there faster.</p> <p>6 Q. Doctor, Pages 19 through 21,</p> <p>7 the authors of Health Canada are</p> <p>8 analyzing the scientific evidence in the</p> <p>9 context of the Bradford Hill aspects or</p> <p>10 criteria, are they not?</p> <p>11 A. Yes.</p> <p>12 Q. Thank you. And if you turn</p> <p>13 to Page 20 -- sorry, Page 21, under the</p> <p>14 heading of "Biologic Plausibility." You</p> <p>15 agree that that's one of the aspects of</p> <p>16 Bradford Hill, right?</p> <p>17 A. Yes. And the first line</p> <p>18 they have is, "Particles of talc are</p> <p>19 hypothesized to migrate into the pelvis."</p> <p>20 And that's very different from the</p> <p>21 statement of the other doctor who said</p> <p>22 it's indisputable.</p> <p>23 MS. GARBER: Motion to</p> <p>24 strike as nonresponsive.</p>	<p>1 "The presence of talc in the ovaries has</p> <p>2 been documented," and they cite to the</p> <p>3 Heller 1996 paper, correct?</p> <p>4 A. True.</p> <p>5 Q. And they go on to say, "This</p> <p>6 evidence" -- "This evidence of retrograde</p> <p>7 transport supports the biologic</p> <p>8 plausibility of the association between</p> <p>9 perineal talc application and ovarian</p> <p>10 exposure; however, the specific</p> <p>11 mechanisms in the cascade of molecular</p> <p>12 events by which talc cause ovarian cancer</p> <p>13 have not been identified." And then they</p> <p>14 cite to Taher 2018.</p> <p>15 Did I read that correctly?</p> <p>16 A. You read it correctly, yes.</p> <p>17 Q. And Doctor, the Saed 2019</p> <p>18 paper does, in fact, provide the</p> <p>19 molecular events by which talc can cause</p> <p>20 ovarian cancer. Can we agree with that?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: No.</p> <p>24 BY MS. GARBER:</p>
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<p>1 BY MS. GARBER:</p> <p>2 Q. Doctor, did I ask you a</p> <p>3 question?</p> <p>4 A. No.</p> <p>5 Q. Should I get my time back</p> <p>6 that you just wasted?</p> <p>7 A. It's a small amount of time.</p> <p>8 MS. CURRY: Object to the</p> <p>9 form.</p> <p>10 BY MS. GARBER:</p> <p>11 Q. All day long it's not a</p> <p>12 small amount of time, is it, Doctor?</p> <p>13 So let me ask you this,</p> <p>14 under the biologic plausibility section</p> <p>15 of the Bradford Hill analysis as</p> <p>16 conducted by Health Canada, the study</p> <p>17 authors indicate that, "Particles of talc</p> <p>18 are hypothesized to migrate into the</p> <p>19 pelvis and ovarian tissue, causing</p> <p>20 irritation and inflammation."</p> <p>21 I read that correctly,</p> <p>22 right?</p> <p>23 A. Yes.</p> <p>24 Q. The authors go on to say,</p>	<p>1 Q. Okay. You have read the</p> <p>2 Saed 2019 paper now?</p> <p>3 A. I have.</p> <p>4 Q. Not at the time of your</p> <p>5 report, but you have?</p> <p>6 MS. CURRY: Object to the</p> <p>7 form.</p> <p>8 THE WITNESS: I have.</p> <p>9 BY MS. GARBER:</p> <p>10 Q. Did it provide a molecular</p> <p>11 basis by which talc can cause ovarian</p> <p>12 cancer?</p> <p>13 A. It proposed a theory without</p> <p>14 proving it. So when you say provide, I'm</p> <p>15 assuming you mean that it proposed a</p> <p>16 theory and then showed that that -- that</p> <p>17 molecular change actually transformed</p> <p>18 cells and causes cancer.</p> <p>19 Q. You used the word "prove."</p> <p>20 So the study provided statistically</p> <p>21 significant findings of an association in</p> <p>22 support of the experiment hypothesis,</p> <p>23 correct?</p> <p>24 A. I disagree.</p>

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<p>1 MS. CURRY: Object to the</p> <p>2 form.</p> <p>3 THE WITNESS: I disagree.</p> <p>4 If the hypothesis is to say that</p> <p>5 inflammation was the cause of</p> <p>6 ovarian cancer, and in your study</p> <p>7 you prove something like CA-125</p> <p>8 goes up, and you consider that</p> <p>9 proof of your hypothesis, I'd have</p> <p>10 to say that's not the case.</p> <p>11 BY MS. GARBER:</p> <p>12 Q. Doctor, was that the only</p> <p>13 finding of the Saed 2019 paper?</p> <p>14 A. I'd be happy to look at the</p> <p>15 rest of it.</p> <p>16 Q. Well, you seem to remember</p> <p>17 the CA-125 that was a corollary finding,</p> <p>18 wasn't it?</p> <p>19 MS. CURRY: Object to the</p> <p>20 form.</p> <p>21 THE WITNESS: If you have</p> <p>22 the paper, again, I'd be happy to</p> <p>23 look at the others.</p> <p>24 BY MS. GARBER:</p>	<p>1 of --</p> <p>2 A. I'd have to look at it</p> <p>3 again.</p> <p>4 Q. Okay. And we'll do that.</p> <p>5 So you see at the end of the</p> <p>6 Bradford Hill analysis and the Health</p> <p>7 Canada assessment, the authors conclude</p> <p>8 that the data are indicative of a causal</p> <p>9 effect, right?</p> <p>10 A. That's what they state, yes.</p> <p>11 Q. And so the authors have</p> <p>12 found that there is a biologically</p> <p>13 plausible mechanism by which talc can</p> <p>14 migrate and talc can induce inflammation,</p> <p>15 correct?</p> <p>16 MS. CURRY: Object to the</p> <p>17 form.</p> <p>18 THE WITNESS: The authors</p> <p>19 believe that Heller's findings are</p> <p>20 evidence of retrograde</p> <p>21 translocation of talc.</p> <p>22 And that is a big</p> <p>23 assumption. And so I can</p> <p>24 understand how they would put</p>
Page 435	Page 437
<p>1 Q. Can you think of any other</p> <p>2 molecular findings that were reported?</p> <p>3 A. I remember --</p> <p>4 Q. For instance ROS or NOS</p> <p>5 increasing with talc application?</p> <p>6 MS. CURRY: Object to the</p> <p>7 form.</p> <p>8 THE WITNESS: I remember --</p> <p>9 and again, if you have the paper</p> <p>10 I'd rather look at it again. But</p> <p>11 I remember him making a statement</p> <p>12 that reactive oxygen species</p> <p>13 actually went up in the presence</p> <p>14 of talc when in fact they were</p> <p>15 actually lower than the controls</p> <p>16 except for one concentration.</p> <p>17 And then with the next</p> <p>18 concentration, it actually went</p> <p>19 back down. And yet, he concluded</p> <p>20 that reactive oxygen species was</p> <p>21 actually going up.</p> <p>22 BY MS. GARBER:</p> <p>23 Q. What was the conclusion of</p> <p>24 the study authors in that paper, by way</p>	<p>1 those things together. But</p> <p>2 there's no proof in Heller's study</p> <p>3 where the talc particles came</p> <p>4 from.</p> <p>5 And so they're saying this</p> <p>6 evidence of retrograde transports</p> <p>7 supports biologic plausibility.</p> <p>8 They cite a study that doesn't</p> <p>9 prove retrograde transport and</p> <p>10 says that is what I'm using to</p> <p>11 support what I believe is</p> <p>12 biologically plausible.</p> <p>13 So yes, these authors are</p> <p>14 making a statement and then citing</p> <p>15 to something that never examined</p> <p>16 retrograde transport.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. Doctor, you have not</p> <p>19 reviewed the Zervomanolakis or the Kunz</p> <p>20 paper with regard to genital tract</p> <p>21 peristalsis, have you?</p> <p>22 A. No.</p> <p>23 Q. Are you aware that there is</p> <p>24 retrograde genital tract peristalsis</p>

<p style="text-align: right;">Page 438</p> <p>1 during the woman's cycle?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: Yes. Of</p> <p>5 course I am. Does that mean that</p> <p>6 talc is able to retrograde</p> <p>7 translocate? I'm not sure. This</p> <p>8 is what often happens. People</p> <p>9 cite studies that don't prove what</p> <p>10 the -- the point that they're</p> <p>11 trying to make.</p> <p>12 BY MS. GARBER:</p> <p>13 Q. Okay. There's been data</p> <p>14 that have shown that particulate in a</p> <p>15 woman's genital tract can travel</p> <p>16 retrograde from the vagina to the</p> <p>17 fallopian tubes and the ovaries, correct?</p> <p>18 You are aware of this data?</p> <p>19 A. If you put her -- if you put</p> <p>20 her in the lithotomy position and give</p> <p>21 her a little oxytocin and -- yes, under</p> <p>22 those very unnatural conditions, there's</p> <p>23 studies supporting that.</p> <p>24 What I'm saying is I don't</p>	<p style="text-align: right;">Page 440</p> <p>1 A. True. And I've explained</p> <p>2 exactly how they make that connection.</p> <p>3 Q. Thank you.</p> <p>4 Let's talk about</p> <p>5 inflammation. You are aware that there</p> <p>6 is study data and peer-reviewed studies</p> <p>7 that indicate a biologically plausible</p> <p>8 mechanism by which talc can induce</p> <p>9 inflammation, correct?</p> <p>10 A. Is there a specific --</p> <p>11 MS. CURRY: Object to the</p> <p>12 form.</p> <p>13 THE WITNESS: -- study you'd</p> <p>14 like to review?</p> <p>15 BY MS. GARBER:</p> <p>16 Q. No, I'm just asking you,</p> <p>17 have you seen peer-reviewed studies that</p> <p>18 indicate talc can induce inflammation?</p> <p>19 A. I have not seen studies that</p> <p>20 I've read that I've been convinced. If</p> <p>21 you have a specific study that you'd like</p> <p>22 to review, I'm happy to go over --</p> <p>23 Q. Have you seen the Ness data?</p> <p>24 Either '99 or 2000?</p>
<p style="text-align: right;">Page 439</p> <p>1 see a single study -- and maybe you can</p> <p>2 quote one for me -- where they dusted the</p> <p>3 perineum of women and shown that that</p> <p>4 talc gets to the ovaries.</p> <p>5 Q. Based on what we know about</p> <p>6 talc and its carcinogenicity that would</p> <p>7 be an unethical study to conduct at this</p> <p>8 point, wouldn't it?</p> <p>9 MS. CURRY: Object to the</p> <p>10 form.</p> <p>11 MR. MIZGALA: Object to the</p> <p>12 form.</p> <p>13 THE WITNESS: Not if -- I</p> <p>14 would say not for a woman who's</p> <p>15 currently using talc.</p> <p>16 BY MS. GARBER:</p> <p>17 Q. Doctor, you would agree with</p> <p>18 me, wouldn't you, that there are study</p> <p>19 authors, peer-reviewed study authors, and</p> <p>20 in addition Health Canada, who have</p> <p>21 concluded that there is a biologically</p> <p>22 plausible mechanism by which talc can</p> <p>23 migrate from the genitals to the ovaries,</p> <p>24 true?</p>	<p style="text-align: right;">Page 441</p> <p>1 A. I did -- it's on my reliance</p> <p>2 list. If we can pull it out I'd be glad</p> <p>3 to go through it again with you.</p> <p>4 Q. Did the Ness authors</p> <p>5 conclude that there was a biologically</p> <p>6 plausible mechanism by which talc can</p> <p>7 induce inflammation?</p> <p>8 A. Again, I'd be happy to read</p> <p>9 the paper if you have it.</p> <p>10 Q. You're not sure?</p> <p>11 MS. CURRY: Object to the</p> <p>12 form.</p> <p>13 THE WITNESS: Oh, I don't</p> <p>14 remember everything off my</p> <p>15 reliance list off the top of my</p> <p>16 head, no.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. Doctor, is it your opinion</p> <p>19 that -- is it your opinion that there is</p> <p>20 not a biologically plausible mechanism to</p> <p>21 support talc can migrate from the</p> <p>22 genitals to the ovaries and tubes because</p> <p>23 of the tubal ligation data?</p> <p>24 MS. CURRY: Object to the</p>

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<p>1 form.</p> <p>2 THE WITNESS: Please repeat</p> <p>3 that again.</p> <p>4 BY MS. GARBER:</p> <p>5 Q. Sure.</p> <p>6 Do you base your opinion</p> <p>7 that talcum powder products don't migrate</p> <p>8 to the ovaries based on tubal ligation</p> <p>9 and hysterectomy data?</p> <p>10 MS. CURRY: Object to the</p> <p>11 form.</p> <p>12 THE WITNESS: No. I base</p> <p>13 the fact that I don't have any</p> <p>14 proof of talc being able to</p> <p>15 migrate to the ovaries under</p> <p>16 normal situations. The tubal</p> <p>17 ligation data and the</p> <p>18 inconsistency of its protective</p> <p>19 impact makes me question even</p> <p>20 further.</p> <p>21 BY MS. GARBER:</p> <p>22 Q. Doctor, if you could pull</p> <p>23 out Taher 2018, Page 2. Do you see under</p> <p>24 the results there --</p>	<p>1 A. I'm assuming this is the</p> <p>2 results of the meta-analysis that hasn't</p> <p>3 been published?</p> <p>4 Q. Yes.</p> <p>5 A. Yes, that's what they say.</p> <p>6 Q. All right. And then a</p> <p>7 couple lines down it says, "This might be</p> <p>8 attributed to the fact that tubal</p> <p>9 ligation is usually performed at an</p> <p>10 earlier age, thus preventing entry of</p> <p>11 talc into the reproductive tract earlier</p> <p>12 and prolonged exposure to talc, compared</p> <p>13 to hysterectomy that is performed later</p> <p>14 in life where higher exposure has already</p> <p>15 taken place."</p> <p>16 It goes on to say, "In a</p> <p>17 recent meta-analysis," and then it cites</p> <p>18 70, "The authors reported a negative</p> <p>19 association with tubal ligation and</p> <p>20 hysterectomy with risk of ovarian</p> <p>21 cancer."</p> <p>22 Did I read that correctly?</p> <p>23 A. Yes, you've read everything</p> <p>24 very well so far.</p>
Page 443	Page 445
<p>1 A. I'm sorry -- Page 2.</p> <p>2 Q. -- that the study authors</p> <p>3 indicate that the most recent</p> <p>4 meta-analysis found a negative</p> <p>5 association with tubal ligation. That's</p> <p>6 what the authors say, right?</p> <p>7 A. This is an unpublished,</p> <p>8 un-peer-reviewed paper.</p> <p>9 Q. That's what the authors say</p> <p>10 in this paper, true?</p> <p>11 A. In this unpublished</p> <p>12 un-peer-reviewed paper, yes.</p> <p>13 Q. That's what the authors say,</p> <p>14 right?</p> <p>15 A. In this unpublished</p> <p>16 peer-reviewed paper, correct.</p> <p>17 Q. Turn to Page 33 please,</p> <p>18 Doctor. That the first full -- second</p> <p>19 full paragraph. It indicates, "Women</p> <p>20 with prior ligation of the fallopian</p> <p>21 tubes showed a significant reduction in</p> <p>22 risk," and then they cite a statistically</p> <p>23 significant odds ratio, right, against</p> <p>24 ovarian cancer?</p>	<p>1 Q. All right.</p> <p>2 A. It's that private schooling.</p> <p>3 Q. And -- and the authors go on</p> <p>4 to say as to the study that the authors</p> <p>5 there stated a highly plausible mechanism</p> <p>6 for the association --</p> <p>7 A. I'm sorry -- yes. As</p> <p>8 suggested by the author. Suggested.</p> <p>9 Q. Right. "Involving the</p> <p>10 blocking of ascent of such agents such as</p> <p>11 talc to the ovaries."</p> <p>12 Again, you disagree with</p> <p>13 these study -- with these two study</p> <p>14 authors that indicate that talc can</p> <p>15 ascend the female genital tract, right?</p> <p>16 A. It is a suggestion by the</p> <p>17 authors. It's not a proven point. These</p> <p>18 are conjecture and theory by those</p> <p>19 authors. And, yes, I would say</p> <p>20 apparently my bar is a little bit higher.</p> <p>21 I would like to see a study where you</p> <p>22 actually put talc on the perineum the way</p> <p>23 people put talc on the perineum and show</p> <p>24 that it gets to the ovaries. So, yes.</p>

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<p>1 And -- and I find, outside</p> <p>2 of this unpublished meta-analysis, when</p> <p>3 you get to the individual studies it</p> <p>4 becomes much less consistent on this</p> <p>5 protective impact of tubal ligation with</p> <p>6 regard to talc.</p> <p>7 MS. GARBER: Objection.</p> <p>8 Motion to strike as nonresponsive.</p> <p>9 BY MS. GARBER:</p> <p>10 Q. Doctor, if you could turn</p> <p>11 back to Health Canada and Page 18. And</p> <p>12 I'll just point to where I'm reading,</p> <p>13 Doctor. Right here.</p> <p>14 Do you see where I am?</p> <p>15 Doctor, it reads: "There is</p> <p>16 support for an association of</p> <p>17 inflammation and increased risk of</p> <p>18 ovarian cancer." And it cites to the</p> <p>19 National Academy of Sciences, Engineering</p> <p>20 and Medicine in 2016 in the Rasmussen</p> <p>21 paper.</p> <p>22 Doctor, that's what these</p> <p>23 study authors who did an analysis --</p> <p>24 A. Can -- can -- I'm sorry,</p>	<p>1 fact that the NSAID data do not support</p> <p>2 reduction of risk of ovarian cancer?</p> <p>3 MS. CURRY: Object to the</p> <p>4 form.</p> <p>5 THE WITNESS: The main</p> <p>6 reason why I hold that opinion is</p> <p>7 because I have seen no evidence of</p> <p>8 chronic inflammation in the</p> <p>9 genital tract from perineal use of</p> <p>10 talc.</p> <p>11 In the Heller study, in the</p> <p>12 case that they looked for evidence</p> <p>13 of clinical information, and --</p> <p>14 and we know what it looks like</p> <p>15 with talc, because there's years</p> <p>16 of using it in pleurodesis, it</p> <p>17 causes granulomas.</p> <p>18 I -- we -- we present every</p> <p>19 STIC lesion, a serous tubular</p> <p>20 intraepithelial carcinoma at</p> <p>21 Cornell. We present it as part of</p> <p>22 our tumor board. And so I've seen</p> <p>23 a lot of STIC lesions. I've seen</p> <p>24 a lot of p53 signatures.</p>
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<p>1 I'll let you finish.</p> <p>2 Q. -- concluded about the mode</p> <p>3 of action, correct?</p> <p>4 MS. CURRY: Object to the</p> <p>5 form.</p> <p>6 THE WITNESS: Yes, and</p> <p>7 interestingly, I -- I would be</p> <p>8 glad to look at the Rasmussen</p> <p>9 paper. I believe it was actually</p> <p>10 a paper that was negative, that</p> <p>11 there was a paper that didn't show</p> <p>12 a reduce in the risk of ovarian</p> <p>13 cancer with -- with</p> <p>14 antiinflammatories.</p> <p>15 BY MS. GARBER:</p> <p>16 Q. And, Doctor, I'm glad you</p> <p>17 mentioned antiinflammatories. Because is</p> <p>18 the other basis for your opinion that</p> <p>19 talc, while it increases inflammation,</p> <p>20 doesn't cause ovarian -- talcum powder --</p> <p>21 strike that.</p> <p>22 Another basis for your</p> <p>23 opinion that talcum powder products do</p> <p>24 not cause ovarian cancer based on the</p>	<p>1 I've not ever seen a case</p> <p>2 with a granuloma or any evidence</p> <p>3 of granulomatous inflammation or</p> <p>4 any other sort of inflammation,</p> <p>5 and so that's the real -- the --</p> <p>6 the other thing that you're</p> <p>7 mentioning, the inconsistency of</p> <p>8 whether antiinflammatories reduce</p> <p>9 the risk of ovarian cancer just</p> <p>10 further confirms my -- my belief.</p> <p>11 But it's really the fact</p> <p>12 that I've seen the precursor</p> <p>13 lesion for high grade serous</p> <p>14 carcinoma, and I've never seen it</p> <p>15 in conjunction with any evidence</p> <p>16 of granulomatous inflammation.</p> <p>17 BY MS. GARBER:</p> <p>18 Q. Okay. Let's take both of</p> <p>19 those, because I think you mentioned two</p> <p>20 different things there.</p> <p>21 As to what you see when you</p> <p>22 look at the tissue pathology, -- that's</p> <p>23 what you're referencing, right, what</p> <p>24 you're seeing microscopically in the path</p>

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<p>1 slides?</p> <p>2 A. Yes.</p> <p>3 Q. And --</p> <p>4 A. I would argue in -- in</p> <p>5 ovarian cancer cases as well, I don't see</p> <p>6 granulomas.</p> <p>7 Q. You mean macroscopically</p> <p>8 when you're doing surgery?</p> <p>9 A. No, I mean microscopically.</p> <p>10 I also scrub out and look at all my</p> <p>11 frozen sections. And we present every</p> <p>12 new patient in a multi-disciplinary tumor</p> <p>13 board where we look at the slides. So</p> <p>14 there's not an ovarian cancer patient</p> <p>15 that I take care of that I haven't seen</p> <p>16 her histologic slides.</p> <p>17 Q. Have you seen testimony</p> <p>18 where there is -- strike that.</p> <p>19 Have you seen data that</p> <p>20 would suggest that you're not seeing</p> <p>21 evidence of acute inflammation because</p> <p>22 the talc and its effects have been</p> <p>23 subsumed by tumor? In other words,</p> <p>24 that's a snapshot in time when there's</p>	<p>1 at the time of precancer, I've not</p> <p>2 seen it. And if it's not there in</p> <p>3 the precancerous phase, when was</p> <p>4 it there?</p> <p>5 BY MS. GARBER:</p> <p>6 Q. Is it your opinion that all</p> <p>7 epithelial ovarian cancers begin in the</p> <p>8 fallopian tube?</p> <p>9 A. No.</p> <p>10 Q. Okay. Let's talk about the</p> <p>11 NSAIDs, the NSAID data.</p> <p>12 You've looked at some</p> <p>13 studies about NSAIDs and their effect</p> <p>14 upon the risk of --</p> <p>15 A. Yes.</p> <p>16 Q. -- ovarian cancer right?</p> <p>17 A. Yes, I have.</p> <p>18 Q. Would you agree with me that</p> <p>19 the aspirin data seem to indicate a</p> <p>20 decreased risk in ovarian cancer?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: I'm not sure</p> <p>24 if that's consistent in every --</p>
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<p>1 carcinogenic transformation, and what</p> <p>2 you're seeing over here years later</p> <p>3 you're not going to see the evidence of</p> <p>4 the chronic inflammation, correct?</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: Maybe you</p> <p>8 misunderstood my description of</p> <p>9 what we do. I said look at every</p> <p>10 invasive cancer and we present</p> <p>11 every STIC.</p> <p>12 And so that's precancer.</p> <p>13 That is a precursor to high grade</p> <p>14 serous ovarian cancer. And now we</p> <p>15 believe there's a p53 signature</p> <p>16 that's even earlier. And I will</p> <p>17 tell you that I've never seen any</p> <p>18 evidence of inflammation in any of</p> <p>19 those lesions, nor have I read of</p> <p>20 anybody showing granulomatous</p> <p>21 inflammation in any of those</p> <p>22 lesions.</p> <p>23 So you may believe it</p> <p>24 disappears later. I'm saying even</p>	<p>1 in every study. I just want to</p> <p>2 get to my report in that area, if</p> <p>3 that's okay.</p> <p>4 BY MS. GARBER:</p> <p>5 Q. Okay. Doctor, shall we go</p> <p>6 off the record?</p> <p>7 A. You can. It's not going to</p> <p>8 take me long.</p> <p>9 THE VIDEOGRAPHER: The time</p> <p>10 is 5:49. Going off the record.</p> <p>11 (Brief pause.)</p> <p>12 THE VIDEOGRAPHER: The time</p> <p>13 is 5:49 p.m. Back on the record.</p> <p>14 THE WITNESS: So Bonovas, et</p> <p>15 al., is a meta-analysis that</p> <p>16 showed antiinflammatory drug use</p> <p>17 did not reduce ovarian cancer.</p> <p>18 Ni, et al., did a pooled</p> <p>19 analysis of 13 case-control</p> <p>20 studies, one clinical trial, three</p> <p>21 cohort studies. Also found no</p> <p>22 efforts of an association between</p> <p>23 aspirin use and ovarian cancer and</p> <p>24 did not find strong evidence of an</p>

Kevin Holcomb, M.D.

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<p>1 association between non-aspirin 2 NSAID use and ovarian cancer. 3 BY MS. GARBER: 4 Q. Doctor, did I have a 5 question pending? 6 A. You had asked me -- yeah. 7 You did. That's why we went off. 8 Remember I was looking for the -- 9 Q. Okay. Have you seen the -- 10 I don't know how to pronounce it -- 11 Q-I-A-O, 2018, study with regard to -- 12 with regard to aspirin and its effects on 13 ovarian cancer? 14 A. I have not. 15 Q. Have you seen Trabert 2013 16 study wherein the study authors found 17 that use of antiinflammatory aspirin was 18 associated with a reduction of risk of 19 ovarian cancer? 20 A. I believe that -- 21 MS. CURRY: Object to the 22 form. 23 THE WITNESS: I believe 24 that's in my -- my report that's</p>	<p>1 cancer to take an NSAID, Tylenol -- well, 2 Tylenol really hasn't shown much 3 difference. But even aspirin. 4 That's different from a 5 woman who has -- or a man who has 6 familial adenomatous polyposis. There's 7 certain situations where the data is so 8 strong that you can prevent cancer, it's 9 actually recommended to use aspirin to 10 prevent it. And we don't do that in GYN 11 oncology. 12 And so I'd have to ask you, 13 not only do I not believe this, but why 14 is the GYN oncology not recommending 15 NSAID and aspirin use if it is so proven 16 that it decreases ovarian cancer risk? 17 It would be -- 18 MS. GARBER: Objection. 19 Objection. Motion to strike as 20 nonresponsive. 21 BY MS. GARBER: 22 Q. Doctor, you're talking in 23 paragraphs, and you're not answering my 24 question. I'm going to just ask you to</p>
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<p>1 saying -- to show the 2 inconsistencies. I gave you two 3 examples of studies, one including 4 meta-analysis, and showing no 5 reduced ovarian cancer, and the 6 studies that you mentioned that 7 show that there was a reduction. 8 BY MS. GARBER: 9 Q. Do you agree, Doctor, that 10 there are data on both sides for both 11 aspirin and nonsteroidal 12 antiinflammatories that go both ways? In 13 other words, there's some data that show 14 a decreased risk of ovarian cancer and 15 some data that do not for both aspirin 16 and NSAIDs? 17 A. I do believe that if there 18 was powerful enough data to support the 19 use of antiinflammatories to prevent the 20 deadliest GYN malignancy, this would be a 21 common recommendation for patients to 22 use. We don't tell BRCA mutation 23 patients to take NSAIDs. We don't tell 24 the women at the highest risk of ovarian</p>	<p>1 indulge me, please. 2 MS. CURRY: I disagree. 3 BY MS. GARBER: 4 Q. My question -- 5 MS. CURRY: That was 6 directly responsive to the 7 question. 8 BY MS. GARBER: 9 Q. My question was, do you 10 agree that there are data for aspirin and 11 NSAIDs that go both ways, they decrease 12 the risk, and other studies do not show 13 that? 14 A. The reason why for speaking 15 in paragraphs -- 16 Q. I didn't ask you why. 17 A. -- is because it's still 18 clearly stated in my report -- 19 Q. Doctor, I didn't ask you why 20 you're speaking in paragraphs. 21 A. But it says so in my report. 22 And I gave you the examples. And we just 23 went through them one by one. I gave you 24 two examples where it did, and two</p>

<p style="text-align: right;">Page 458</p> <p>1 examples it didn't. And then you follow 2 up a question -- 3 Q. If you're not -- if you're 4 not going to answer my question -- 5 A. Because -- 6 Q. -- I think we're going to 7 have to call the Court because we're 8 nearly done, and you're talking in 9 paragraphs and you're not responding to 10 my question. 11 A. But you're asking -- 12 MS. SHARKO: The order 13 doesn't allow you to criticize his 14 answer. So please stop. 15 THE WITNESS: You're asking 16 questions that -- 17 MS. O'DELL: That's not 18 true, Susan. Completely not true. 19 THE WITNESS: -- have clear 20 evidence. You're saying have I -- 21 I cited in my report data that 22 went both ways. And then you turn 23 around and ask me, do you believe 24 that data goes both ways? And I</p>	<p style="text-align: right;">Page 460</p> <p>1 cancer. 2 Do you recall that data? 3 MS. CURRY: Object to the 4 form. 5 THE WITNESS: Yes. 6 BY MS. GARBER: 7 Q. Why did you cite those data? 8 A. Couple reasons. 9 Penninkilampi, in trying to explain the 10 way exactly what were you trying to 11 explain, he's saying that I know it's 12 inconsistent, the data on nonsteroidals. 13 He's saying, I know it doesn't look in 14 support of my argument for my biologic 15 plausibility. 16 But maybe -- maybe NSAIDs 17 don't work because they don't -- they 18 only -- they prevent -- they work on COX. 19 And COX expression is low in these cells 20 anyway. And that's why you don't see a 21 more impressive -- so he's explaining why 22 this data that you're saying is -- is as 23 unimpressive as it is. 24 And so I read in</p>
<p style="text-align: right;">Page 459</p> <p>1 cited. 2 BY MS. GARBER: 3 Q. I never said in your report. 4 Do you agree that there are 5 peer-reviewed published studies on the 6 topic of anti-inflammatories, aspirin and 7 NSAIDs -- NSAIDs, that go both ways, some 8 data show a decreased risk and other data 9 do not? 10 MS. CURRY: Object to the 11 form. 12 BY MS. GARBER: 13 Q. Do you agree? 14 A. I do agree. And that's the 15 reason -- the fact that it's gone both 16 ways is the reason why we do not 17 recommend nonsteroidal use or aspirin use 18 to prevent it. 19 Q. And Doctor, you don't 20 know -- strike that. 21 You cited on your 22 supplemental report some data that were 23 cited in the Penninkilampi paper about 24 the COX expression in epithelial ovarian</p>	<p style="text-align: right;">Page 461</p> <p>1 Dr. Saenz -- her deposition, she 2 mentioned some basic science research by 3 Dr. Dineo Khabele, who I happened to have 4 been a resident with back at Cornell 5 years ago. 6 And so that piqued my 7 interest. And I was curious to see what 8 is she doing in her lab, and so I 9 actually went back and I looked at the 10 studies that she was showing to see that 11 Penninkilampi actually had misstated the 12 fact that Type 2 tumors, high grade 13 serous carcinomas, actually expressed 14 COX-1. And Type 1 expressed COX-2. 15 So this idea that inhibitors 16 of COX, that NSAIDs, that they don't 17 work, or aspirin doesn't work because 18 there's low expression of this thing in 19 the first place, that doesn't make sense. 20 If -- if -- you'd have to explain 21 something else. 22 Maybe it doesn't make a 23 difference because ovarian cancer is not 24 caused by inflammation.</p>

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<p>1 Q. You didn't read the Wilson 2 2015 paper with regard to COX -- COX 3 expression in epithelial ovarian tissue, 4 did you?</p> <p>5 MS. CURRY: Object to the 6 form.</p> <p>7 THE WITNESS: Whose -- whose 8 paper? I'm sorry.</p> <p>9 BY MS. GARBER: 10 Q. Wilson, et al.? 11 A. If you can show it to me I'd 12 let you know. I don't think so.</p> <p>13 MS. O'DELL: Counsel, please 14 don't show something to the 15 witness.</p> <p>16 MS. CURRY: I'm just -- 17 you're referring to -- you just 18 said Wilson 2000 --</p> <p>19 MS. O'DELL: Let me finish. 20 That's the third time --</p> <p>21 MS. CURRY: Hang on a minute 22 and let me explain. It's not the 23 third time.</p> <p>24 MS. O'DELL: It's the third</p>	<p>1 That's the only thing I was 2 doing. That is not inappropriate.</p> <p>3 MS. O'DELL: It is 4 inappropriate --</p> <p>5 MS. CURRY: I disagree. 6 MS. O'DELL: -- and the 7 three instances that I've referred 8 to are not occasions when the Elmo 9 was in use, so --</p> <p>10 MS. CURRY: Well, I think 11 you are mischaracterizing what has 12 happened today.</p> <p>13 MS. O'DELL: That is not 14 true.</p> <p>15 BY MS. GARBER: 16 Q. Doctor, is the basis for 17 your opinion that talc does not induce 18 inflammation which leads to ovarian 19 cancer based on pleurodesis data?</p> <p>20 MS. CURRY: Object to the 21 form.</p> <p>22 THE WITNESS: No.</p> <p>23 BY MS. GARBER: 24 Q. Pleurodesis does -- talc</p>
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<p>1 time I've seen you do it and I 2 haven't said anything. But that's 3 not appropriate --</p> <p>4 MS. GARBER: I've seen you 5 do it as well.</p> <p>6 MS. CURRY: Excuse me. 7 Excuse me. I've pointed out where 8 you were trying to show something 9 on the Elmo, and he's trying to 10 find it, where it is on the 11 document to help speed things 12 along.</p> <p>13 MS. O'DELL: Those --</p> <p>14 MS. CURRY: What I just 15 referred to him -- excuse me. Let 16 me finish speaking, please.</p> <p>17 What I just pointed out was, 18 when you say Wilson 2015, it's -- 19 you're not giving any further 20 information about the article.</p> <p>21 So I'm pointing out that 22 it's the one on his supplemental 23 list of items considered that 24 we've produced to you today.</p>	<p>1 pleurodesis has been shown to increase 2 inflammation in pleural tissue, correct?</p> <p>3 A. But not cancer. Yes, it 4 increases --</p> <p>5 Q. That wasn't my question. 6 A. It increases inflammation. 7 Does not cause cancer.</p> <p>8 So the reason why I don't 9 think inflammation --</p> <p>10 Q. Doctor, I didn't ask you the 11 reason. Did I?</p> <p>12 A. Oh, I'm sorry. I thought I 13 was here to clarify my positions. I'll 14 wait for the questions.</p> <p>15 Q. Thank you. I really 16 appreciate that. You've got to let me 17 get there.</p> <p>18 A. You don't get there.</p> <p>19 Q. I will if you don't stop 20 talking in paragraphs.</p> <p>21 Doctor, did you read the 22 Ghio 2007 study with regard to 23 pleurodesis, talc pleurodesis?</p> <p>24 A. Can you produce it for me so</p>

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<p>1 I can let you know? 2 Q. I will. 3 While she's pulling that, 4 I'll ask you this. You indicate that 5 talc pleurodesis does not induce cancer, 6 is that fair, what you said? 7 A. Yes. 8 Q. And the number one 9 indication for talc pleurodesis is 10 malignant pleural effusions, right? 11 A. Yes. 12 Q. And so those patients 13 already have cancer and are likely end 14 stage, right? 15 A. It had been used for years 16 on patients without malignancy. The 17 reason why it's used on patients -- 18 Q. Did you say yes? 19 A. Say this again? 20 Q. Did you say yes to my -- to 21 my question? 22 MS. CURRY: Objection. 23 Please don't interrupt him -- 24 BY MS. GARBER:</p>	<p>1 Pleural Effusions." 2 (Document marked for 3 identification as Exhibit 4 Holcomb-26.) 5 BY MS. GARBER: 6 Q. Nonmalignant pleural 7 effusions are what for the lay listener? 8 MS. CURRY: Object to the 9 form. 10 MS. SHARKO: What exhibit is 11 this now? 12 MS. BROWN: 26. 13 MS. SHARKO: Pardon me? 14 MS. BROWN: 26. 15 BY MS. GARBER: 16 Q. What's a nonmalignant 17 pleural effusion? 18 A. A nonmalignant pleural 19 effusion is one where you have fluid 20 surrounding the lung but it's not from a 21 cancer. 22 Q. All right. And -- and this 23 paper is authored by Andrew Ghio and 24 Victor Roggli.</p>
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<p>1 Q. Did you say yes to my 2 question? I didn't ask you for the 3 reason. 4 A. Your -- your question is? 5 Q. Did you say yes? 6 A. Can you ask the question 7 again? I want to -- just repeat it. 8 Q. I said: "And those patients 9 have cancer and are likely end stage, 10 right?" 11 And you said: "It has been 12 used for years on patients without 13 malignancy. The reason --" 14 And then I said: "Did you 15 say yes?" 16 You said? 17 A. Yes. In those patients that 18 have malignancy, they are likely end 19 stage. As opposed to the patients who 20 don't have malignancy for years that has 21 been used. 22 Q. Doctor, the title of this 23 study is "Talc Should Not Be Used For 24 Pleurodesis in Patients With Nonmalignant</p>	<p>1 Do you see that? 2 MS. CURRY: Object to the 3 form. 4 THE WITNESS: Yes. 5 BY MS. GARBER: 6 Q. Okay. In the first 7 paragraph, it begins, however, it says, 8 "However, there should continue to be 9 concern regarding use of talc for 10 pleurodesis in individuals with 11 nonmalignant pleural effusions and 12 spontaneous pneumothorax. This dilemma 13 results from a possible increased risk of 14 malignant mesothelioma in those patients 15 treated with talc. Consequently, an 16 alternative agent should be employed in 17 any individual without malignancy 18 requiring pleurodesis." 19 Did I read that correctly? 20 A. You read that correctly 21 again. 22 THE VIDEOGRAPHER: Can 23 you -- your hair is on top of the 24 mic.</p>

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<p>1 MS. GARBER: Sorry.</p> <p>2 THE VIDEOGRAPHER: Thanks.</p> <p>3 BY MS. GARBER:</p> <p>4 Q. Doctor, do you think that --</p> <p>5 that peer-reviewed published data</p> <p>6 indicate that there is a dose-response</p> <p>7 with regard to talc and risk of ovarian</p> <p>8 cancer?</p> <p>9 A. I believe that that's one of</p> <p>10 the weaknesses is it's not consistently</p> <p>11 shown.</p> <p>12 Q. But you do agree that there</p> <p>13 are peer-reviewed studies which show a</p> <p>14 dose-response, correct?</p> <p>15 MS. CURRY: Object to the</p> <p>16 form.</p> <p>17 THE WITNESS: I've seen</p> <p>18 studies that are peer reviewed and</p> <p>19 published that have only two</p> <p>20 levels of exposure, and one is</p> <p>21 higher than the other and they</p> <p>22 call that a dose-response.</p> <p>23 So what I've seen in the</p> <p>24 literature, people define</p>	<p>1 A. Yeah. I mean, I can't --</p> <p>2 I'm going to have to watch up here</p> <p>3 because it's too small.</p> <p>4 Q. Are you there --</p> <p>5 A. Yeah, I'm going to have to</p> <p>6 sit it here because --</p> <p>7 Q. -- in your version?</p> <p>8 MS. CURRY: Can I show him</p> <p>9 my version which is --</p> <p>10 THE WITNESS: I mean</p> <p>11 literally, it's this. That's</p> <p>12 Table 3. You want me to read that</p> <p>13 and give you an opinion?</p> <p>14 MS. GARBER: Let me see</p> <p>15 yours, Ms. Curry, if you could.</p> <p>16 Yes, please show that to</p> <p>17 him. Thank you.</p> <p>18 BY MS. GARBER:</p> <p>19 Q. Doctor, in the Berge study</p> <p>20 it indicates that with the duration of</p> <p>21 talc use greater than ten years, defined</p> <p>22 as ten years, there is a statistically</p> <p>23 significant relative risk, correct?</p> <p>24 A. I'm just trying to make sure</p>
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<p>1 dose-response in a lot of</p> <p>2 different ways. So I'd have to</p> <p>3 agree with you, yes.</p> <p>4 Penninkilampi does that.</p> <p>5 Two dose levels and says there's a</p> <p>6 dose-response.</p> <p>7 (Document marked for</p> <p>8 identification as Exhibit</p> <p>9 Holcomb-27.)</p> <p>10 BY MS. GARBER:</p> <p>11 Q. I'm going to mark as</p> <p>12 Exhibit 27 the Berge paper that you've</p> <p>13 referenced many times today, Doctor.</p> <p>14 And, Doctor, if you can turn</p> <p>15 to -- if you can turn to -- well, in this</p> <p>16 paper, unfortunately there isn't page</p> <p>17 numbers.</p> <p>18 And so this table is Table</p> <p>19 3, and it appears about five, six pages</p> <p>20 forward from the end of the document.</p> <p>21 Table 3.</p> <p>22 A. Sure.</p> <p>23 Q. If you want, we can look at</p> <p>24 it here. Do you see Table 3, Doctor?</p>	<p>1 I understand what they're looking at</p> <p>2 here.</p> <p>3 Q. That's what the table says,</p> <p>4 right?</p> <p>5 A. Give me one second, ma'am.</p> <p>6 I'll be right with you.</p> <p>7 MS. GARBER: Let's go off</p> <p>8 the record then.</p> <p>9 THE VIDEOGRAPHER: All</p> <p>10 right. The time is 6:03 p.m. Off</p> <p>11 the record.</p> <p>12 (Brief pause.)</p> <p>13 MS. SHARKO: For the record,</p> <p>14 we object to this. I don't think</p> <p>15 it's appropriate. I don't think</p> <p>16 it's appropriate, but it's late in</p> <p>17 the day, and I assume that the</p> <p>18 plaintiffs are almost done in any</p> <p>19 event.</p> <p>20 MS. GARBER: You're correct</p> <p>21 in that regard.</p> <p>22 THE VIDEOGRAPHER: We are</p> <p>23 back on the record. The time is</p> <p>24 6:04 p.m.</p>

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<p>1 BY MS. GARBER:</p> <p>2 Q. Doctor, these data here that</p> <p>3 are presented in Table 3, they show</p> <p>4 duration and frequency of talc use,</p> <p>5 right?</p> <p>6 A. Yes.</p> <p>7 Q. In the meta-analysis?</p> <p>8 A. Yes.</p> <p>9 Q. Correct?</p> <p>10 And for the duration defined</p> <p>11 as ten years, the relative risk is</p> <p>12 statistically significant at 1.16, right?</p> <p>13 A. The only thing I'm not -- I</p> <p>14 have to say I'm not sure what's going on</p> <p>15 here, and I didn't want to hold up more</p> <p>16 time. Are they saying if you compare</p> <p>17 studies in this 12-risk estimate and look</p> <p>18 at someone who had less than ten years</p> <p>19 use and more than ten years use, and then</p> <p>20 say the relative risk between those two</p> <p>21 is 1.16, and a confidence interval that</p> <p>22 comes close but doesn't cross one, then</p> <p>23 you're -- if it's a -- if it's just</p> <p>24 splitting it in two, and say well ten is</p>	<p>1 THE WITNESS: Yes. But not</p> <p>2 together. They're saying duration</p> <p>3 in one and frequency in the other.</p> <p>4 So they're saying that -- but I</p> <p>5 think they've just split this in</p> <p>6 two.</p> <p>7 BY MS. GARBER:</p> <p>8 Q. And, Doctor, if you go back</p> <p>9 to the abstract, first page of this</p> <p>10 study.</p> <p>11 A. Right.</p> <p>12 Q. Okay. Second-to-last</p> <p>13 sentence. It says, "This meta-analysis</p> <p>14 resulted in a weak but statistically</p> <p>15 significant association between genital</p> <p>16 use of talc and ovarian cancer, which</p> <p>17 appears to be limited to serous carcinoma</p> <p>18 with a suggestion of a dose-response."</p> <p>19 Do you see that?</p> <p>20 A. Yeah.</p> <p>21 Q. Those were the authors'</p> <p>22 words, right, suggestion of a</p> <p>23 dose-response?</p> <p>24 A. Suggestion, yes.</p>
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<p>1 the split-off and I'm going to look at</p> <p>2 less than ten and more than ten, that's</p> <p>3 not a dose-response. You can't make a</p> <p>4 dose-response on just two observations.</p> <p>5 And I think that may be what</p> <p>6 they're doing on the second one as well.</p> <p>7 But to be perfectly honest, I'm not sure.</p> <p>8 I'd have to look at the methods to figure</p> <p>9 out what they're doing here. But it</p> <p>10 seems like a -- like a -- basically</p> <p>11 just -- what's the term I'm looking for?</p> <p>12 Just two options, less than ten years,</p> <p>13 more than ten years.</p> <p>14 Q. Doctor, let me ask you this.</p> <p>15 Does Table 3 --</p> <p>16 A. I guess I don't understand</p> <p>17 exactly what they did here.</p> <p>18 Q. Yeah. Okay. That's fair.</p> <p>19 Does Table 3 present</p> <p>20 duration and frequency of talc use that</p> <p>21 present statistically significant</p> <p>22 results?</p> <p>23 MS. CURRY: Object to the</p> <p>24 form.</p>	<p>1 Q. Okay. And then --</p> <p>2 A. And I think they're using</p> <p>3 suggestion because they just did a</p> <p>4 dichotomous -- that's the word that I was</p> <p>5 looking for, dichotomous -- a dichotomous</p> <p>6 evaluation with just -- and you can't</p> <p>7 prove a dose-response. Because if they</p> <p>8 were doing a test for dose-response, they</p> <p>9 met statistical significance. And you</p> <p>10 know how much I like confidence</p> <p>11 intervals. They would say that they</p> <p>12 found a dose-response. But they're</p> <p>13 saying it's a suggestion of a</p> <p>14 dose-response because they didn't do that</p> <p>15 sort of analysis.</p> <p>16 Q. Doctor, Health Canada</p> <p>17 concluded there was a dose-response in</p> <p>18 their Bradford Hill, right, under their</p> <p>19 biologic gradient assessment?</p> <p>20 MS. CURRY: Object to the</p> <p>21 form.</p> <p>22 THE WITNESS: I'd have to</p> <p>23 look -- have to look back at that.</p> <p>24 BY MS. GARBER:</p>

<p style="text-align: right;">Page 478</p> <p>1 Q. You don't remember?</p> <p>2 A. No, I don't.</p> <p>3 Q. All right.</p> <p>4 A. Can you tell me which page</p> <p>5 you are talking about?</p> <p>6 Q. Can I ask you a few more</p> <p>7 questions?</p> <p>8 Were you provided by</p> <p>9 Johnson & Johnson counsel any testing of</p> <p>10 talcum powder products by Dr. Longo with</p> <p>11 regard to historical samples of talcum</p> <p>12 powder products?</p> <p>13 A. No.</p> <p>14 Q. Were you provided by Johnson</p> <p>15 & Johnson with any internal Johnson &</p> <p>16 Johnson company testing of their talcum</p> <p>17 powder products for asbestos or fibrous</p> <p>18 talc?</p> <p>19 A. No.</p> <p>20 Q. Were you provided with any</p> <p>21 company witness testimony with regard to</p> <p>22 testing of talcum powder products?</p> <p>23 A. I hadn't requested any of</p> <p>24 these, and no, I wasn't provided.</p>	<p style="text-align: right;">Page 480</p> <p>1 said all that to her, she said, "I just</p> <p>2 need to know, Doctor, should I use it?</p> <p>3 Is it safe? Yes or no?" what would your</p> <p>4 response be?</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: I'd want to</p> <p>8 ask her why she uses it. I'm</p> <p>9 going to make another assumption.</p> <p>10 The fact that she's asking me</p> <p>11 again after that explanation is</p> <p>12 that she's concerned. And I would</p> <p>13 say, if you're concerned maybe you</p> <p>14 should find an alternative product</p> <p>15 because you're concerned, not</p> <p>16 because I think it causes ovarian</p> <p>17 cancer. But I don't see why you</p> <p>18 would stress yourself out over</p> <p>19 this.</p> <p>20 BY MS. GARBER:</p> <p>21 Q. And, Doctor, if your patient</p> <p>22 said, "I just need to know, is using</p> <p>23 Johnson & Johnson talcum powder products</p> <p>24 that contain asbestos, is that safe for</p>
<p style="text-align: right;">Page 479</p> <p>1 Q. So, Doctor, let me ask you</p> <p>2 this. I want you to assume that talcum</p> <p>3 powder products contain asbestos, and a</p> <p>4 patient of yours has asked you, is it</p> <p>5 safe to use talcum powder products on my</p> <p>6 genitals. What would be your response?</p> <p>7 A. Well, my first step would be</p> <p>8 to disclose that I'm involved in this</p> <p>9 litigation.</p> <p>10 And then I would tell her,</p> <p>11 pretty much what I would say without that</p> <p>12 assumption, that there are some, in my</p> <p>13 opinion, weaker designed studies showing</p> <p>14 a weak, as other people agree, increased</p> <p>15 risk of ovarian cancer. And other</p> <p>16 weaker -- other weakly designed studies</p> <p>17 that show no difference, and it seems to</p> <p>18 be about a 50/50 thing, and then cohort</p> <p>19 studies that show no increased risk.</p> <p>20 And I would tell the patient</p> <p>21 overall there's not sufficient evidence</p> <p>22 to suggest that talcum powder causes</p> <p>23 ovarian cancer.</p> <p>24 Q. And, Doctor, if after you</p>	<p style="text-align: right;">Page 481</p> <p>1 me to use? Yes or no?"</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: And this is</p> <p>5 with my assumption that there's</p> <p>6 asbestos in the product?</p> <p>7 BY MS. GARBER:</p> <p>8 Q. Right.</p> <p>9 A. And I'm going to make</p> <p>10 another assumption that there were</p> <p>11 asbestos in the products that was studied</p> <p>12 in this totality of the evidence that I</p> <p>13 reviewed. And I would -- I'm not going</p> <p>14 to repeat it for the sake of time, but I</p> <p>15 would have the same exact discussion with</p> <p>16 her.</p> <p>17 Q. You would say that it's safe</p> <p>18 to use?</p> <p>19 A. I would say that, given your</p> <p>20 assumption, there's asbestos in this</p> <p>21 talcum powder. The totality of the data</p> <p>22 using the same product that you say has</p> <p>23 asbestos in it, does not convince me that</p> <p>24 it causes ovarian cancer. So I would --</p>

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<p>1 that's what I would say to her.</p> <p>2 Q. Would you say that it was</p> <p>3 then safe to use?</p> <p>4 A. Again, I'm telling you that</p> <p>5 there is no convincing evidence that this</p> <p>6 powder causes ovarian cancer. And that's</p> <p>7 where I would leave it.</p> <p>8 Q. Okay. Let me turn to</p> <p>9 another hypothetical.</p> <p>10 I want you to assume that</p> <p>11 Johnson & Johnson's talcum powder</p> <p>12 products are found to contain fibrous</p> <p>13 talc and your patient asks you the same</p> <p>14 question, is it safe for me to use</p> <p>15 Johnson & Johnson's talcum powder</p> <p>16 products that contain fibrous talc on my</p> <p>17 genitals, what would your response be?</p> <p>18 MS. CURRY: Object to the</p> <p>19 form.</p> <p>20 THE WITNESS: In this</p> <p>21 hypothetical situation, can I</p> <p>22 assume that that same Johnson &</p> <p>23 Johnson that has fibrous talc was</p> <p>24 the same stuff used in all the</p>	<p>1 you, is it safe to apply this product to</p> <p>2 my genitals.</p> <p>3 A. Okay. I'm going to assume</p> <p>4 then that the product that you're</p> <p>5 describing is the same product that was</p> <p>6 used in the totality of the data that I</p> <p>7 reviewed. And I would tell her the exact</p> <p>8 same story, that there's some weaker</p> <p>9 studies suggesting a modest or weak</p> <p>10 inconsistent positive association, and</p> <p>11 stronger studies showing no association.</p> <p>12 And in its totality, I would say there's</p> <p>13 no compelling evidence that that product</p> <p>14 that you're describing increases her risk</p> <p>15 for ovarian cancer.</p> <p>16 Q. Do you go to those data</p> <p>17 because you assume there's asbestos in</p> <p>18 Johnson & Johnson's products always?</p> <p>19 MS. CURRY: Object to the</p> <p>20 form.</p> <p>21 THE WITNESS: Do I go to</p> <p>22 what data?</p> <p>23 BY MS. GARBER:</p> <p>24 Q. Do you go to the talc data</p>
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<p>1 body of literature that I've or --</p> <p>2 is that what you'd like me to</p> <p>3 assume as well?</p> <p>4 BY MS. GARBER:</p> <p>5 Q. What I want you to assume is</p> <p>6 that one of your patients is asking you</p> <p>7 is it safe or not.</p> <p>8 A. But this is your world. And</p> <p>9 this is your hypothetical situation, so I</p> <p>10 want to make sure I'm doing it right.</p> <p>11 The patient is asking me,</p> <p>12 talcum powder products by Johnson &</p> <p>13 Johnson has fibrous talc as you said.</p> <p>14 And I'm just asking you, can I assume</p> <p>15 that the body of literature in its</p> <p>16 totality that I've reviewed is the same</p> <p>17 product that you're describing, there is</p> <p>18 no reason for me to have a different</p> <p>19 conversation?</p> <p>20 Q. My hypothetical did not</p> <p>21 include the body of literature.</p> <p>22 My hypothetical was that</p> <p>23 Johnson & Johnson's products contain</p> <p>24 fibrous talc and your patient is asking</p>	<p>1 because you make an assumption that</p> <p>2 Johnson & Johnson's products contain</p> <p>3 asbestos?</p> <p>4 MS. CURRY: Object to the</p> <p>5 form.</p> <p>6 THE WITNESS: I'm not sure</p> <p>7 what would make you say that.</p> <p>8 How else can I advise a</p> <p>9 patient on the risk of a substance</p> <p>10 without going to the epidemiologic</p> <p>11 data on that substance? She's</p> <p>12 asking me about talc. What other</p> <p>13 data am I going to review to give</p> <p>14 her an answer?</p> <p>15 BY MS. GARBER:</p> <p>16 Q. Doctor, you didn't look at</p> <p>17 the NTP data, did you?</p> <p>18 A. No.</p> <p>19 MS. GARBER: Okay. Let's</p> <p>20 just take a break and let me look</p> <p>21 at my notes. But I think I'm</p> <p>22 finished.</p> <p>23 MS. CURRY: Let's go off the</p> <p>24 record.</p>

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<p style="text-align: right;">Page 486</p> <p>1 THE VIDEOGRAPHER: Okay. 2 The time is 6:13 p.m. Off the 3 record. 4 (Short break.) 5 THE VIDEOGRAPHER: We are 6 back on the record. The time is 7 6:36 p.m. 8 BY MS. GARBER: 9 Q. Doctor, I'm going to mark an 10 additional paper that appears in the 11 Lancet dated March 23, 2019. 12 (Document marked for 13 identification as Exhibit 14 Holcomb-28.) 15 BY MS. GARBER: 16 Q. And, Doctor, you have not 17 seen this paper before, have you? 18 A. No. 19 Q. All right. If I could turn 20 your attention to the left-hand column 21 that appears at the bottom if you look up 22 here? 23 A. Yes. 24 Q. Okay. And, Doctor, it</p>	<p style="text-align: right;">Page 488</p> <p>1 some reason separated that one out 2 with a potentially. 3 BY MS. GARBER: 4 Q. All right. And the footnote 5 that the authors are citing to is the 6 Penninkilampi data, correct? 7 A. Yes. 8 Q. And, Doctor, I'm going to 9 mark another document as Exhibit 29. 10 (Document marked for 11 identification as Exhibit 12 Holcomb-29.) 13 BY MS. GARBER: 14 Q. And this is a study that 15 appeared in ACOG Obstetrics and 16 Gynecology, and it's titled "What's New 17 in Ovarian Cancer." 18 Do you see that? 19 A. Yes, I do. 20 Q. And it says, "Best articles 21 from the past year," correct? 22 A. Yes. 23 Q. It's written by Jason D. 24 Wright, M.D., correct?</p>
<p style="text-align: right;">Page 487</p> <p>1 reads -- the title is "Epithelial Ovarian 2 Cancer" by Stephanie -- oh boy. Okay. I 3 have to start with French. 4 A. Lheureux, I believe. 5 Q. Lheureux. All right. 6 And it indicates: "Risk 7 factors for epithelial ovarian cancer 8 include the number of lifetime ovulations 9 (absence of pregnancy, early age of 10 menarche, and late age of menarche) 11 family history of EOC, smoking, benign 12 gynecologic conditions (including 13 endometriosis, polycystic ovarian system, 14 and pelvic inflammatory disease) and 15 potentially the use of talcum powder." 16 Did I read that correctly? 17 A. Yes, you did. 18 Q. So here the authors just 19 days ago are indicating the potential of 20 talc as a risk factor for epithelial 21 ovarian cancer, true? 22 MS. CURRY: Object to the 23 form. 24 THE WITNESS: Yes. They for</p>	<p style="text-align: right;">Page 489</p> <p>1 A. Correct. 2 Q. You respect him? 3 A. Yes. 4 Q. And the Penninkilampi 5 article is listed as four of the best 6 articles from the past year, correct? 7 A. Yes. 8 Q. Doctor, we -- 9 MS. CURRY: Object to the 10 form of the last question. 11 THE WITNESS: I don't -- you 12 know, I'm sorry. 13 BY MS. GARBER: 14 Q. Doctor, I didn't have a 15 question. 16 A. No, no, I want to go back. 17 Because I said yes. But you made a few 18 misstatements there. 19 A, you said this was a 20 study. It's not. It's another op Ed 21 piece from Jason Wright saying what he 22 felt was the best papers of the year. 23 Two, you said it was an 24 ACOG. No, it's the journal of</p>

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<p>1 obstetrics -- Obstetrics and Gynecology</p> <p>2 is the name of the journal this is in.</p> <p>3 And just to clarify, without</p> <p>4 speaking to Dr. Wright, I'm not sure why</p> <p>5 he's calling these specifically the best,</p> <p>6 whether he's speaking towards the quality</p> <p>7 of the studies or just what's the most</p> <p>8 popular or sensational.</p> <p>9 Q. Doctor, what's the journal</p> <p>10 name?</p> <p>11 A. Obstetrics and Gynecology.</p> <p>12 Q. Does that -- do people refer</p> <p>13 to that as by a particular color?</p> <p>14 A. Green.</p> <p>15 Q. And that's a -- that's a</p> <p>16 journal that you regularly read?</p> <p>17 A. Yes.</p> <p>18 Q. And you do some review work</p> <p>19 for them, don't you?</p> <p>20 A. Yes.</p> <p>21 Q. That is a published document</p> <p>22 that appears within the Green Journal,</p> <p>23 right?</p> <p>24 A. Yes. You're telling me this</p>	<p>1 exhaustive review haven't seen</p> <p>2 before.</p> <p>3 And so in that setting, if</p> <p>4 there was some convincing data</p> <p>5 that bumped them from 2-B to 1,</p> <p>6 yes, I would feel differently</p> <p>7 about it.</p> <p>8 BY MS. GARBER:</p> <p>9 Q. I will state in my</p> <p>10 hypothetical that the IARC authors or</p> <p>11 working group look at the data that</p> <p>12 exists today with regard to the</p> <p>13 epidemiological data, the meta-analyses</p> <p>14 that exist, the nine meta-analyses,</p> <p>15 including Taher, and the other</p> <p>16 epidemiological data, the Saed data and</p> <p>17 the other biologically plausible data,</p> <p>18 and the mechanistic data that was</p> <p>19 previously contained in IARC 2010, and</p> <p>20 they concluded that it -- that talcum</p> <p>21 powder products were a Group 1</p> <p>22 carcinogen, would your opinions in this</p> <p>23 matter change?</p> <p>24 MS. CURRY: Object to the</p>
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<p>1 is from the Green Journal, so it's --</p> <p>2 Q. Doctor, were you aware that</p> <p>3 IARC is currently evaluating talcum</p> <p>4 powder products for its carcinogenicity?</p> <p>5 MS. CURRY: Object to the</p> <p>6 form.</p> <p>7 THE WITNESS: No. I was not</p> <p>8 aware.</p> <p>9 BY MS. GARBER:</p> <p>10 Q. You are not aware of that?</p> <p>11 Doctor, if -- I want you to</p> <p>12 assume that IARC reviews the data that</p> <p>13 exists to date and concludes that talcum</p> <p>14 powder products are a Group 1 carcinogen.</p> <p>15 Would your opinions in this case differ</p> <p>16 with regard to talcum powder products?</p> <p>17 MS. CURRY: Object to the</p> <p>18 form.</p> <p>19 THE WITNESS: I'd have to</p> <p>20 see what additional data happened</p> <p>21 between 2010 and 2019 that that</p> <p>22 bumped them from 2-B to 1. So I'm</p> <p>23 assuming that there would be some</p> <p>24 data that I've -- after my</p>	<p>1 form.</p> <p>2 THE WITNESS: I have to be</p> <p>3 honest. It's hard for me to</p> <p>4 imagine that Dr. Saed's paper</p> <p>5 being quoted in IARC. So this is</p> <p>6 a tough one for me to get into</p> <p>7 your hypothetical situation here.</p> <p>8 But no, I'm not so sure,</p> <p>9 because I'm thinking from the last</p> <p>10 time they published a</p> <p>11 classification to now, there's</p> <p>12 going to be three prospective</p> <p>13 studies, all coming to the</p> <p>14 conclusion that there is no</p> <p>15 increased risk.</p> <p>16 And then there's going to be</p> <p>17 a number of meta-analysis, as</p> <p>18 you're saying, which a lot of the</p> <p>19 data is rechurning what they've</p> <p>20 already looked at. So it would be</p> <p>21 what incremental data have they</p> <p>22 added to it.</p> <p>23 So I guess I'm having a hard</p> <p>24 time in your -- in your scenario,</p>

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<p>1 how IARC is going to get from a 2 2-B to a 1, based on what's been 3 published from the last time that 4 they issued an opinion on this. 5 BY MS. GARBER: 6 Q. I want you to assume that 7 they get to a 1. Is your opinion going 8 to change out of your respect for the 9 institution of IARC, a branch of the 10 World Health Organization? 11 MS. CURRY: Object to the 12 form. 13 THE WITNESS: If IARC used 14 Penninkilampi, for example -- 15 let's say that I was -- I'm going 16 to give you a hypothetical. 17 BY MS. GARBER: 18 Q. Doctor, you don't give me a 19 hypothetical. 20 A. If -- 21 Q. I give you one. You 22 understand that, right? 23 A. I'm giving you the 24 hypothetical of how I'm considering your</p>	<p>1 Q. Sure. Are you aware that 2 the FDA -- are you aware of FDA's 3 statements with regard to certain 4 cosmetic makeup products that are sold at 5 Justice and Claire's with regard to talc 6 and asbestos? 7 MS. CURRY: Object to the 8 form. 9 THE WITNESS: No, I'm not 10 aware. 11 BY MS. GARBER: 12 Q. Did you, before you came 13 here today and in preparation for your 14 deposition, endeavor to look at what FDA 15 is saying about talcum powder products? 16 MS. CURRY: Object to the 17 form. 18 THE WITNESS: No. 19 (Document marked for 20 identification as Exhibit 21 Holcomb-30.) 22 BY MS. GARBER: 23 Q. Let's mark this as 24 Exhibit 30.</p>
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<p>1 situation. 2 Q. I want you to answer my 3 hypothetical. 4 A. It depends on what brought 5 them from 2-B to 1. I have respect for 6 IARC because I looked at their 7 methodology. We've gone through the 8 things that I didn't agree with IARC 9 methodology. But if you told me IARC's 10 quality dropped to such a standard that 11 they had Dr. Saed's paper as highly 12 credible, and this is moving us from here 13 to here, I'm no longer so impressed with 14 IARC. 15 So, no, my respect level for 16 IARC would drop considerably, and I 17 probably wouldn't follow the 18 recommendations. 19 Q. Doctor, you're aware, aren't 20 you, of FDA's recent statements with 21 regard to the businesses Justice and 22 Claire and their cosmetic products? 23 A. That's -- I'm not -- can you 24 repeat that once again.</p>	<p>1 Doctor, this is -- at the 2 bottom, you see this is the FDA's 3 website, right, FDA.gov/cosmetics? 4 A. Yes. 5 Q. Do you see that? 6 A. Yes. 7 Q. And do you see at the top it 8 indicates recalls and alerts? "FDA 9 advises consumers to stop using certain 10 Claire's cosmetic products." 11 Do you see that? 12 A. Yes. 13 Q. And do you see there in the 14 middle of the document, it indicates, 15 "Product samples test positive for 16 asbestos," and then it lists a number of 17 Claire's products? 18 A. Yes. 19 Q. Doctor, if there was such a 20 finding by FDA with regard to J&J's 21 talcum powder products, would your 22 opinions change in this case? 23 MS. CURRY: Object to the 24 form.</p>

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<p>1 THE WITNESS: I'd have to</p> <p>2 say the testing of the products</p> <p>3 that went into this body of</p> <p>4 knowledge that I have, I'm not</p> <p>5 sure. I would have to think about</p> <p>6 it. The reason why I'm hesitating</p> <p>7 is because I don't know, is that a</p> <p>8 new problem? Like, for example,</p> <p>9 this one store, Claire's stores, I</p> <p>10 think it's easier to call these</p> <p>11 folks out because you don't know</p> <p>12 if this is a new contamination.</p> <p>13 The question would be if all</p> <p>14 this data is with the same</p> <p>15 contaminated product, I'd have to</p> <p>16 assume that a woman is at no more</p> <p>17 increased risk than -- than --</p> <p>18 than the stuff in this paper -- in</p> <p>19 these papers.</p> <p>20 But I can't see myself going</p> <p>21 against FDA regulations. I mean,</p> <p>22 if FDA says stop using something,</p> <p>23 I'm not going to tell people to</p> <p>24 use something against FDA's</p>	<p>1 Q. You would heed the warning?</p> <p>2 MS. CURRY: Object to the</p> <p>3 form.</p> <p>4 THE WITNESS: I would think</p> <p>5 anyone with common sense would.</p> <p>6 It doesn't make sense to not to.</p> <p>7 BY MS. GARBER:</p> <p>8 Q. Similarly, if FDA compelled</p> <p>9 a warning to be placed on Johnson &</p> <p>10 Johnson's products, would you heed that</p> <p>11 warning if your patients were asking you</p> <p>12 if it was safe to use?</p> <p>13 MS. CURRY: Object to the</p> <p>14 form.</p> <p>15 THE WITNESS: Putting a</p> <p>16 warning on it or pulling it off</p> <p>17 the market?</p> <p>18 BY MS. GARBER:</p> <p>19 Q. Putting a warning on the</p> <p>20 bottle.</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: Would I tell</p> <p>24 patients to heed the warning.</p>
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<p>1 regulations.</p> <p>2 BY MS. GARBER:</p> <p>3 Q. And if FDA indicates that</p> <p>4 the testing that they conducted of</p> <p>5 Johnson & Johnson's talcum powder</p> <p>6 products test positive for asbestos,</p> <p>7 would your causation opinions change?</p> <p>8 MS. CURRY: Object to the</p> <p>9 form.</p> <p>10 THE WITNESS: No. No.</p> <p>11 BY MS. GARBER:</p> <p>12 Q. Would your advice to</p> <p>13 patients change?</p> <p>14 A. Apparently the FDA would</p> <p>15 likely put out a warning to say stop</p> <p>16 using it, and, yeah, I would stop using</p> <p>17 it. I've done that in the past where</p> <p>18 there's things that -- if the FDA sends</p> <p>19 out a warning about, and I stop doing it,</p> <p>20 even though I may think in my hands it's</p> <p>21 safe.</p> <p>22 It has a lot to do with</p> <p>23 medical/legal issues and things like</p> <p>24 that. But --</p>	<p>1 BY MS. GARBER:</p> <p>2 Q. Sure. If the patient -- if</p> <p>3 there was a warning about ovarian cancer</p> <p>4 on the bottle, compelled by -- by FDA and</p> <p>5 your patient came and said I've been</p> <p>6 putting this on my genitals, should I</p> <p>7 stop, what would your answer be?</p> <p>8 MS. CURRY: Object to the</p> <p>9 form.</p> <p>10 THE WITNESS: I have to</p> <p>11 believe that if the -- if the FDA</p> <p>12 thought that that product was such</p> <p>13 a carcinogen and so dangerous</p> <p>14 there wouldn't be just a warning</p> <p>15 label, they would pull it off the</p> <p>16 market. If the FDA is just</p> <p>17 putting a warning so that patients</p> <p>18 are aware of it, I think my</p> <p>19 conversation with her is going to</p> <p>20 be very similar to the</p> <p>21 conversation I just told you I</p> <p>22 would have now.</p> <p>23 BY MS. GARBER:</p> <p>24 Q. But you wouldn't tell her</p>

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<p style="text-align: right;">Page 502</p> <p>1 to -- to stop using it?</p> <p>2 A. My guess is the warning</p> <p>3 would be very similar to the</p> <p>4 conversations I'm having, there are some</p> <p>5 weaker data suggesting -- so in your --</p> <p>6 you know, your hypothetical situation,</p> <p>7 it's -- I would think that they would</p> <p>8 possibly recall it or -- not recall it.</p> <p>9 They would -- they would put an advice to</p> <p>10 stop using a certain product, like they</p> <p>11 are doing in this situation. And a</p> <p>12 patient came to me and says the FDA has</p> <p>13 this warning to stop using this product,</p> <p>14 I would support the FDA.</p> <p>15 Q. And, Doctor, I know you are</p> <p>16 not a regulatory expert, but you do know</p> <p>17 that at times FDA does not have the power</p> <p>18 to compel a warning, you understand that,</p> <p>19 right?</p> <p>20 A. I -- I, really -- as you</p> <p>21 started with your statement, I am not a</p> <p>22 regulatory expert. I know very little</p> <p>23 about regulations and how the FDA works</p> <p>24 in that regard.</p>	<p style="text-align: right;">Page 504</p> <p>1 to investigate and monitor reports of</p> <p>2 asbestos contamination in certain</p> <p>3 cosmetic products and will provide</p> <p>4 additional information as it becomes</p> <p>5 available. The agency is and will</p> <p>6 continue to work with other" -- "other</p> <p>7 federal partners to share our collective</p> <p>8 expertise to advance scientific test</p> <p>9 methods for the assessment of asbestos."</p> <p>10 Did I read that correctly?</p> <p>11 A. So far you've been perfect.</p> <p>12 Q. Does it cause you concern</p> <p>13 that the FDA is interested in looking</p> <p>14 further into whether talcum powder</p> <p>15 products contain asbestos?</p> <p>16 MS. CURRY: Object to the</p> <p>17 form.</p> <p>18 THE WITNESS: No. It</p> <p>19 actually gives me reassurance that</p> <p>20 the federal agencies that are</p> <p>21 supposed to be protecting public</p> <p>22 safety are at work and doing what</p> <p>23 they are supposed to be doing.</p> <p>24 BY MS. GARBER:</p>
<p style="text-align: right;">Page 503</p> <p>1 (Document marked for</p> <p>2 identification as Exhibit</p> <p>3 Holcomb-31.)</p> <p>4 BY MS. GARBER:</p> <p>5 Q. I want to mark another</p> <p>6 document. And this is Exhibit 31, which</p> <p>7 is from the FDA website. And it's titled</p> <p>8 "Talc."</p> <p>9 Doctor, do you see -- do you</p> <p>10 see that the date of the download of this</p> <p>11 document is March 19, 2019?</p> <p>12 A. Yes.</p> <p>13 Q. And, Doctor, did you ever</p> <p>14 endeavor to go to the FDA website and put</p> <p>15 in "talc" to see what the FDA was saying</p> <p>16 about talcum powder products?</p> <p>17 A. No.</p> <p>18 Q. Okay. I will represent to</p> <p>19 you what appears new on this website is</p> <p>20 what's under the heading of "Talc."</p> <p>21 It says, "Here is a recent</p> <p>22 FDA action related to talc. Learn more</p> <p>23 below."</p> <p>24 It reads, "The FDA continues</p>	<p style="text-align: right;">Page 505</p> <p>1 Q. But you are here in this</p> <p>2 litigation saying talc is safe, even</p> <p>3 though FDA is looking into whether or not</p> <p>4 talcum powder products contain asbestos.</p> <p>5 A. Right. So if --</p> <p>6 MS. CURRY: Object to the</p> <p>7 form.</p> <p>8 BY MS. GARBER:</p> <p>9 Q. It doesn't concern you?</p> <p>10 A. It would concern me if they</p> <p>11 told me that they found levels of talc</p> <p>12 and -- and -- you know, the -- the reason</p> <p>13 why it would concern me is because I</p> <p>14 don't know if that's a new contamination</p> <p>15 or that product is the same as it's</p> <p>16 always been.</p> <p>17 If it's the same as it's</p> <p>18 always been, then you are talking about a</p> <p>19 level of contamination that doesn't have</p> <p>20 compelling evidence that it causes</p> <p>21 cancer.</p> <p>22 But I don't know how I would</p> <p>23 know the difference. I think I would</p> <p>24 have to assume that it's -- that it's</p>

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<p>1 different than this. I think you'd have</p> <p>2 to either assume it's the same or it's</p> <p>3 different. And I think the safer thing</p> <p>4 to do would be to assume that it's</p> <p>5 different.</p> <p>6 If I knew for sure that this</p> <p>7 level of contamination they find has been</p> <p>8 in this stuff all this time and all these</p> <p>9 thousands of patients that we've</p> <p>10 followed, you know, the large</p> <p>11 case-control studies, the 70,000, 60,000,</p> <p>12 40,000 patients on cohort studies, if</p> <p>13 that's the product that they've been</p> <p>14 using and it's contaminated all this</p> <p>15 time, I would have to say no, that</p> <p>16 wouldn't worry me. But there's no way</p> <p>17 that I would be able to tell the</p> <p>18 difference.</p> <p>19 Q. Shouldn't you, as a patient</p> <p>20 advocate, err on the side of safety?</p> <p>21 MS. CURRY: Object to the</p> <p>22 form.</p> <p>23 THE WITNESS: That's what I</p> <p>24 just said, I would.</p>	<p>1 THE WITNESS: You're saying</p> <p>2 the advisory would just say that</p> <p>3 there's some evidence suggesting</p> <p>4 that talc -- what is the -- can</p> <p>5 you word the -- can you give me</p> <p>6 the hypothetical wording of what</p> <p>7 is SGO is saying?</p> <p>8 BY MS. GARBER:</p> <p>9 Q. Sure. SGO has issued an</p> <p>10 advisory that says there is evidence that</p> <p>11 talc can cause cancer, ovarian cancer.</p> <p>12 A. Right. And then --</p> <p>13 Q. Would you -- would you</p> <p>14 continue to advise patients that talcum</p> <p>15 powder products are safe?</p> <p>16 MS. CURRY: Object to the</p> <p>17 form.</p> <p>18 THE WITNESS: Before I made</p> <p>19 a decision on that I'd have to go</p> <p>20 and see what is the data that they</p> <p>21 are basing that on.</p> <p>22 If they are basing it on the</p> <p>23 data that I've just reviewed, I</p> <p>24 would have the same discussion</p>
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<p>1 BY MS. GARBER:</p> <p>2 Q. You know, Doctor, if -- you</p> <p>3 are a member of the SGO, right?</p> <p>4 A. Yes.</p> <p>5 Q. And that stands for Society</p> <p>6 of Gynecologic Oncology, right?</p> <p>7 A. Yes.</p> <p>8 Q. That's a professional</p> <p>9 organization?</p> <p>10 A. Yes.</p> <p>11 Q. And do you know what --</p> <p>12 whether they list talc as a risk factor</p> <p>13 at present?</p> <p>14 A. On which site, on the SGO</p> <p>15 website?</p> <p>16 Q. Yeah.</p> <p>17 A. No, I'm not -- I'm not sure.</p> <p>18 Q. I want you to assume that --</p> <p>19 that the SGO issues an advisory that talc</p> <p>20 can cause cancer. Would you continue to</p> <p>21 recommend to patients that they use</p> <p>22 talcum powder products on their genitals?</p> <p>23 MS. CURRY: Object to the</p> <p>24 form.</p>	<p>1 with my patients, because I -- I</p> <p>2 would say them saying that there's</p> <p>3 evidence to this effect is just</p> <p>4 telling the truth.</p> <p>5 If I then have to go and</p> <p>6 read the body of literature that</p> <p>7 they're using to make that</p> <p>8 warning, to decide, well, yes,</p> <p>9 the -- the studies that they are</p> <p>10 referring to are the same ones I</p> <p>11 know, and the ones that don't is</p> <p>12 the same amount going both ways,</p> <p>13 my feeling would be the same.</p> <p>14 So is their advisory based</p> <p>15 on new data or an assessment of</p> <p>16 what I've assessed?</p> <p>17 BY MS. GARBER:</p> <p>18 Q. You wouldn't heed the</p> <p>19 advisory of the SGO, your professional</p> <p>20 organization, is that your testimony?</p> <p>21 A. And stop using talc myself?</p> <p>22 What -- what would --</p> <p>23 MS. CURRY: Object to the</p> <p>24 form.</p>

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<p>1 BY MS. GARBER: 2 Q. And advise patients that 3 it's safe to use? 4 A. You didn't say that SGO is 5 advising to stop using talc. You said 6 what would I do if the SGO had an 7 advisory just saying that patients should 8 be aware that there's information out 9 there to this effect. 10 Q. That wasn't my hypothetical, 11 was it, Doctor? 12 A. Yeah. Can you go back and 13 read it? 14 Q. The SGO issues an advisory 15 that talc can cause cancer. Would that 16 change what you told patients about the 17 safety of talcum powder products? 18 MS. CURRY: Object to the 19 form. 20 THE WITNESS: If the SGO 21 jumped up to the same 22 classification as IARC that says 23 there's insufficient evidence but 24 this is potentially a carcinogen,</p>	<p>1 Q. You're not going to heed the 2 advisory of the SGO? 3 MS. CURRY: Object to the 4 form. 5 THE WITNESS: You -- the 6 advice -- 7 BY MS. GARBER: 8 Q. Because you know the data 9 better? 10 A. The advice -- there is no 11 advisory here. You keep on saying that 12 the SGO is saying that there's evidence 13 that talc can cause cancer. An advisory 14 is telling you to do something. In this 15 case, are they saying stop using talc or 16 that patients should just be aware? 17 Q. Let me give you another 18 hypothetical. SGO issues an advisory to 19 stop using talcum powder products on your 20 genitals because it contains asbestos. 21 Would you heed that advisory? 22 MS. CURRY: Object to the 23 form. 24 THE WITNESS: If the SGO is</p>
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<p>1 I don't see how SGO would be 2 saying anything different than 3 IARC. 4 So that -- that statement 5 that says it can, you'd have to go 6 in and see, well, what's the 7 evidence that you're basing it on. 8 And I'm saying that -- why 9 would I change my feeling about 10 this if somebody else looks at 11 this data, and it's the same data 12 that I've just reviewed, and says 13 we're going to make this 14 statement. 15 And the patient comes to me 16 and asks me, well, how do you feel 17 about that statement? And if it's 18 based on this same data, I'm not 19 sure how it changes the fact that 20 it's from SGO. I'm still going to 21 then explain, this is the truth as 22 I see it and the totality of the 23 evidence. 24 BY MS. GARBER:</p>	<p>1 telling patients to stop using 2 talc because of asbestos that's 3 been proven to be there, yes, to 4 be honest, I would probably drop 5 in line, just not to be out of -- 6 I'd be fearing medical/legal 7 exposure by not doing it, no 8 matter how I felt about the data. 9 BY MS. GARBER: 10 Q. More concerned about your 11 neck rather than the patients, Doctor? 12 MS. CURRY: Object to the 13 form. 14 THE WITNESS: I have my 15 opinion of this data. The data -- 16 if you're saying my hypothetical 17 that I just gave you is that the 18 data didn't change and SGO makes a 19 statement. I'm worried about the 20 patients the same amount, because 21 the data is the data. 22 You're saying, well, what if 23 SGO gets behind it and says based 24 on what you read, we want to give</p>

<p style="text-align: right;">Page 514</p> <p>1 an advisory?</p> <p>2 The risk level hasn't</p> <p>3 changed. It's not based on any</p> <p>4 new data. So I don't care about</p> <p>5 my patients any less. The risk to</p> <p>6 them hasn't increased.</p> <p>7 BY MS. GARBER:</p> <p>8 Q. Doctor, is cornstarch a safe</p> <p>9 alternative to talcum powder products?</p> <p>10 MS. CURRY: Object to the</p> <p>11 form.</p> <p>12 THE WITNESS: It's an</p> <p>13 alternative, yes.</p> <p>14 BY MS. GARBER:</p> <p>15 Q. Is it a safe alternative?</p> <p>16 MS. CURRY: Object to the</p> <p>17 form.</p> <p>18 THE WITNESS: I have no</p> <p>19 reason to think that cornstarch is</p> <p>20 not safe.</p> <p>21 BY MS. GARBER:</p> <p>22 Q. You haven't done a</p> <p>23 comprehensive literature review of the</p> <p>24 cornstarch data, have you?</p>	<p style="text-align: right;">Page 516</p> <p>1 finished.</p> <p>2 THE VIDEOGRAPHER: Okay.</p> <p>3 Stand by, please. This marks the</p> <p>4 end of today's deposition. The</p> <p>5 time is 6:59 p.m.</p> <p>6 (Excused.)</p> <p>7 (Deposition concluded at</p> <p>8 approximately 6:59 p.m.)</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p>
<p style="text-align: right;">Page 515</p> <p>1 A. No.</p> <p>2 Q. Let me ask you about some of</p> <p>3 the expert work that you've done, just so</p> <p>4 that I'm clear on your prior testimony.</p> <p>5 Since the Ingham case, and</p> <p>6 that verdict, and before you were hired</p> <p>7 in the MDL, did you continue to do any</p> <p>8 expert work with regard to talcum powder</p> <p>9 products and ovarian cancer?</p> <p>10 A. No. You actually asked me</p> <p>11 that earlier. Same answer. No.</p> <p>12 Q. Okay. And are you currently</p> <p>13 serving as an expert on the talcum powder</p> <p>14 products in any other litigation aside</p> <p>15 from the MDL?</p> <p>16 A. No.</p> <p>17 MS. GARBER: Okay. Just</p> <p>18 give me one moment.</p> <p>19 Okay. All right. I have</p> <p>20 nothing further at this point.</p> <p>21 Thank you, Doctor.</p> <p>22 THE WITNESS: Sure.</p> <p>23 MS. CURRY: No questions.</p> <p>24 MS. GARBER: Okay. We're</p>	<p style="text-align: right;">Page 517</p> <p>1</p> <p>2 CERTIFICATE</p> <p>3</p> <p>4</p> <p>5 I HEREBY CERTIFY that the</p> <p>6 witness was duly sworn by me and that the</p> <p>7 deposition is a true record of the</p> <p>8 testimony given by the witness.</p> <p>9</p> <p>10 It was requested before</p> <p>11 completion of the deposition that the</p> <p>12 witness, KEVIN HOLCOMB, M.D. have the</p> <p>13 opportunity to read and sign the</p> <p>14 deposition transcript.</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>13 MICHELLE L. GRAY, A Registered Professional Reporter, Certified Shorthand Reporter, Certified Realtime Reporter and Notary Public Dated: March 28, 2019</p> <p>(The foregoing certification of this transcript does not apply to any reproduction of the same by any means, unless under the direct control and/or supervision of the certifying reporter.)</p>

<p style="text-align: right;">Page 518</p> <p>1 INSTRUCTIONS TO WITNESS</p> <p>2</p> <p>3 Please read your deposition</p> <p>4 over carefully and make any necessary</p> <p>5 corrections. You should state the reason</p> <p>6 in the appropriate space on the errata</p> <p>7 sheet for any corrections that are made.</p> <p>8 After doing so, please sign</p> <p>9 the errata sheet and date it.</p> <p>10 You are signing same subject</p> <p>11 to the changes you have noted on the</p> <p>12 errata sheet, which will be attached to</p> <p>13 your deposition.</p> <p>14 It is imperative that you</p> <p>15 return the original errata sheet to the</p> <p>16 deposing attorney within thirty (30) days</p> <p>17 of receipt of the deposition transcript</p> <p>18 by you. If you fail to do so, the</p> <p>19 deposition transcript may be deemed to be</p> <p>20 accurate and may be used in court.</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p>	<p style="text-align: right;">Page 520</p> <p>1</p> <p>2 ACKNOWLEDGMENT OF DEPONENT</p> <p>3</p> <p>4 I, _____, do</p> <p>5 hereby certify that I have read the</p> <p>6 foregoing pages, 1 - 521, and that the</p> <p>7 same is a correct transcription of the</p> <p>8 answers given by me to the questions</p> <p>9 therein propounded, except for the</p> <p>10 corrections or changes in form or</p> <p>11 substance, if any, noted in the attached</p> <p>12 Errata Sheet.</p> <p>13</p> <p>14</p> <p>15 _____</p> <p>16 KEVIN HOLCOMB, M.D. DATE</p> <p>17</p> <p>18</p> <p>19 Subscribed and sworn</p> <p>20 to before me this</p> <p>21 _____ day of _____, 20____.</p> <p>22 My commission expires: _____</p> <p>23 _____</p> <p>24 Notary Public</p>
<p style="text-align: right;">Page 519</p> <p>1 - - - - -</p> <p>2 E R R A T A</p> <p>3 - - - - -</p> <p>4 PAGE LINE CHANGE</p> <p>5 _____</p> <p>6 REASON: _____</p> <p>7 _____</p> <p>8 REASON: _____</p> <p>9 _____</p> <p>10 REASON: _____</p> <p>11 _____</p> <p>12 REASON: _____</p> <p>13 _____</p> <p>14 REASON: _____</p> <p>15 _____</p> <p>16 REASON: _____</p> <p>17 _____</p> <p>18 REASON: _____</p> <p>19 _____</p> <p>20 REASON: _____</p> <p>21 _____</p> <p>22 REASON: _____</p> <p>23 _____</p> <p>24 REASON: _____</p>	<p style="text-align: right;">Page 521</p> <p>1 LAWYER'S NOTES</p> <p>2 PAGE LINE</p> <p>3 _____</p> <p>4 _____</p> <p>5 _____</p> <p>6 _____</p> <p>7 _____</p> <p>8 _____</p> <p>9 _____</p> <p>10 _____</p> <p>11 _____</p> <p>12 _____</p> <p>13 _____</p> <p>14 _____</p> <p>15 _____</p> <p>16 _____</p> <p>17 _____</p> <p>18 _____</p> <p>19 _____</p> <p>20 _____</p> <p>21 _____</p> <p>22 _____</p> <p>23 _____</p> <p>24 _____</p>

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